SIR JAMES PENNETHORNE

ARCHITECT AND URBAN PLANNER

Geoffrey Tyack

Ph.D., Royal Holloway and Bedford New College,

University of London

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Abstract

Sir James Pennethorne (1801-1871) was the architectural heir of John Nash, in whose office he received much of his early training. From 1839 until 1870 he worked almost exclusively for the government: devising and carrying out major street improvement schemes in central London; designing and laying out the first metropolitan parks intended primarily for the use of the poor; acting as architecural surveyor to the Crown Estate in London; advising successive governments on schemes for new public buildings in the capital; and designing some of the most important of those buildings himself. He was one of the leading architects and urban planners of the mid 19th century, and a study of his career fills a major gap in the history of London, and the archtectural history of 19th-century England.

A first chapter traces Pennethorne's early career, examining his training, his role in the Nash office, and his first independantly commissioned buildings. An assessment of his contribution to the planning of London follows, concentrating first on street improvements, then on the Crown Estate, and finally on parks. Pennethorne's main activities in these areas were concentrated in the 1840s and early 1850s. In 1844 he began his involvement in the planning and design of government buildings, and from the 1850s until his retirement the interest of his career is mainly architectural. A chapter traces his

dealings with the Office of Works, through which department government buildings were conceived and carried out. The buildings themselves are then considered by type: government offices, museums, royal residences, and a miscellaneous group which includes the Public Record Office and the first purpose-built headquarters of the University of London. A final chapter provides an assessment of Pennethorne's achievements and of his place in the history of English architecture.

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ABBREVIATIONS

BL, Add MS	British Library, Additional Manuscripts
BN	Building News
CL	Country Life
Colvin, Dictionary	Howard Colvin, A Biographical Dictionary of British Architects 1600-1840.
Cres	Public Record Office, Crown Estate papers
DNB	Dictionary of National Biography
Hansard	Hansard's Parliamentary Debates
GLRO	Greater London Record Office
ILN	Illustrated London News
King's Works	H. M. Colvin and others, History of the Kings Works
NMR	National Monuments Record
PP	Parliamentary Papers (House of Commons)
PRO	Public Record Office, miscellaneous collections
RIBA	Royal Institute of British Architects
RIBA Trans	Transactions of the Royal Institute of British Architects
Sel.Cttee.	Select Committee
Survey of London	The Survey of London (1900-), 52 vols. to date.
T	Public Record Office, Treasury Papers
VCH	Victoria County History
Works	Public Record Office, Office of Works papers

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PREFACE

James Pennethorne has been called "the last State architect" (1). Like Jones, Wren, Hawksmoor, Chambers and Soane before him, he spent the most important part of his professional life working for central Government. Like them, too, he designed major buildings in London, and prepared plans for rebuilding and beautifying the city. But his career, unlike theirs, has never been fully chronicled. The present study is offered in the belief that an understanding of Pennethorne's career and achievements makes an important contribution to our knowledge both of the history of Victorian London, and of 19th-century architecture in Britain as a whole.

The sources for a study of Pennethorne's achievements are copious. In piecing together his early career I have received much help from two of his descendants who allowed me to consult family papers. Sir John Summerson kindly allowed me to transcribe his notes taken from a lost diary for 1832. Some papers relating to Pennethorne's early commissions survive in the Northumberland and Kent record offices, and I also made use of contemporary printed references and obituaries. The most important sources for his public buildings and urban improvement schemes lie among the Public Records, for which he designed the first purpose-built repository. I have also made extensive use of Parliamentary Papers, Hansard, the volumes of the Builder and Building News, and the Transactions of the RIBA.

I have consulted papers and designs in the hands of institutions for which Pennethorne designed buildings, notably the Geological Museum, the National Gallery, the Staff College, and the University of London. I have also been allowed to see photocopies of documents relating to Buckingham Palace among the Royal Archives, and have seen Pennethorne's designs for the Palace in the Royal Library at Windsor. For Pennethorne's parks I have consulted papers and designs in the Greater London Record Office. For his dealings with politicians I have used those politicians' papers where available and accessible. I have also consulted drawings and photographs in the RIBA drawings collection, the British Library, the Greater London Record Office and the National Monuments Record.

No architectural history can be written without a close study of the buildings themselves, and I am grateful to those who have kindly supplied information about Pennethorne's buildings, or allowed me access to them. I also acknowledge the help of the archivists and custodians who allowed me to see documents in their care, and those who have supplied photographs. I owe a special debt of gratitude for the enthusiastic support and advice of my supervisor, Professor J. Mordaunt Crook.

Note: Footnotes are placed at the end of each chapter.

1. Pennethorne Hughes, "The Last State Architect", C.L. 22 Feb, 1952, p.500.

CHAPTER 1

PROLOGUE : THE LEGACY OF NASH

(Notes to Chapter 1 are on p. 66).

James Pennethorne came from an old family, supposedly of Welsh origins. A William Pennethorne was leasing manorial property in Rushton (Northants) in the 14th century (1), and later members of the family settled in Yorkshire and Lincolnshire. James's great-grandfather, Thomas Pennethorne, a Roman Catholic, lived at Brigg (Lincs.), but his son, another Thomas (d.1778), was disinherited by his father for marrying a Protestant (2), and moved to London, where his eldest son Thomas, the architect's father, was born in Portpool Lane, Holborn, in 1762. The younger Thomas Pennethorne moved away to his mother's home county, Staffordshire, where he married a local girl, Elizabeth Salt of Wolverhampton. The couple moved to Worcester, where Thomas set up in business as a hop merchant, with a house in the Butts, just outside the line of the old city walls (3). Their first child, Thomas, was born in 1798 and baptised in the early-18th-century church of St. Nicholas at the northern end of the High Street. He was followed by six other children in rapid succession, the third of whom, James, was born in 1801 (4).

The Pennethorne children might well have led obscure provincial lives had they not been related to Mary Ann Bradley, second wife of the architect John Nash (5).

Nash was aged 46 at the time of his second marriage in 1798. He had recently established himself in London as a fashionable country-house architect in partnership with the landscape gardener, Humphry Repton. The Repton connection brought him into contact with the Prince Regent, and from then on he became one of the most successful members of the architectural profession.

Nash and his wife had no children. In about 1813, after some 15 years of marriage, he began to take an interest in the Pennethornes, with the ultimate intention of passing on to one or other of the children his large and lucrative practice. He was reaching an age when many men today would retire; a few years later he told the diarist, Joseph Farington, that "if it were not for the King he [would] quit his profession..." (6). For the Pennethorne parents the arrangement was as beneficial as it was for Nash. They were never rich, and must have been glad to be relieved of some of the responsibility of providing for their seven children. They certainly began to move up in the world. By the 1820s they were living in a smarter part of Worcester, Foregate Street, where Mrs. Pennethorne ran a "ladies boarding academy" (7). They subsequently moved to Albany Terrace, further north, where Thomas Pennethorne died in 1843, leaving all his property to his wife (8). She continued to operate the school until her death in 1849, when it was taken over by their daughters Elizabeth and Sarah (9).

By this time the other Pennethorne children had moved

into an altogether different social orbit. The first to benefit from Nash's generosity was James's elder brother Thomas, who began visiting Nash's "castle" at East Cowes in the Isle of Wight in 1813 ([10]). It seems that Nash intended to give Thomas an architectural education, but he died in 1819 having shown a precocious talent for drawing (Plate 1) ([11]). Two years later Mrs. Nash had adopted the oldest daughter, Ann, as a companion, and Nash was, according to Farington, proposing to leave her £10,000 ([12]).

James Pennethorne now took his older brother's place as Nash's architectural heir-apparent. He spent the first 18 years of his life in Worcester, where he was educated by a Dr. Simpson in Silver Street. He shared his brother's artistic interests, and in the summer of 1815 he spent some time sketching with him, referring to it later as "the happiest time we ever spent together". He visited the Isle of Wight for the first time in the spring of 1817, when Thomas was "too unwell to be in London", and in February 1820, after Thomas's death, he became a clerk in Nash's office ([13]).

Nash was now at the height of his career. His patron, the Prince Regent, had just become King. Nash had already designed the Royal Lodge in Windsor Great Park and had remodelled Brighton Pavilion and some of the interiors of Carlton House. Since 1815 he had been one of the three "attached architects" in the reorganised Office of Works, the body responsible ever since the

Middle Ages for public buildings and the royal palaces. Even more important, through his post as Architect in the Department of Woods and Forests - the government agency which managed the Crown estates - he had become deeply involved in the remodelling of the West End of London ([14]). This undertaking dominated his later years, and work on Regent Street and Regents Park was progressing fast when Pennethorne entered Nash's office.

Pennethorne spent nearly two years as a clerk with Nash ([15]). Architectural training in early-19th-century England was provided by the pupilage method, under which the neophyte learned the elements of his profession in an older architect's office. Pennethorne must have acquired some first-hand acquaintance with the day-to-day administration of a large architectural practice at this time, but it is unlikely that he learned very much about designing buildings. As a member of the Prince Regent's set, Nash led an active social life which often took him away from his office, and he also retired occasionally to the Isle of Wight, leaving routine affairs in the hands of his assistants and his managing clerk, William Brown ([16]). In order to give Pennethorne a more rigorous training, therefore, Nash arranged for him to leave his office at the end of 1821, and to learn drawing, then seen as the sine qua non of successful architectural design ([17]).

Pennethorne's training in draughtsmanship took place under Augustus Charles Pugin, an emigré from

revolutionary France who had been employed by Nash as a draughtsman and had subsequently become one of the most successful illustrators of his time ([18]). While taking commissions in his own right, like that for Ackermann's Microcosm of London (1808), Pugin continued to supply Nash with details of Gothic buildings for use in his country houses. In 1821 he published some of his own drawings under the title Specimens of Gothic Architecture. He also established what was in effect a drawing school with a number of articled pupils, some of whom, like Pennethorne, lived in his house under a regime of strict discipline described in some detail by the biographer of his famous son, Augustus Welby Pugin ([19]). The younger Pugin was too young to influence the 21-year-old Pennethorne, and his career developed along very different lines. But Pennethorne acquired a certain expertise in Gothic detailing through his connection with the second volume of Specimens of Gothic Architecture, published in 1823 ([20]). He also did a measured drawing of Hardwick's Marylebone parish church for Pugin's Illustrations of the Public Buildings of London, the first volume of which was published jointly with John Britton in 1825. His skill in architectural draughtsmanship was soon demonstrated in a drawing of Nash's Regent Street Quadrant, which was exhibited at the Royal Academy in 1823, and in an atmospheric watercolour of the ambulatory of Westminster Abbey ([21]). It was probably about this time that he made a meticulously

detailed plaster model of Salisbury Cathedral which still survives in the building.

Pennethorne left Pugin's office in the summer of 1823. He was still financially dependent on Nash, and now moved into Nash's magnificent new town house, no.14 Regent Street. It was from here that he produced his first architectural design, for a National Monument (Plate 2), which was exhibited at the Royal Academy in 1824 ([22]). The design was one of many spawned by Britain's success in the Napoleonic Wars, and was intended to commemorate the Battles of Waterloo and Trafalgar. It shows no trace whatsoever of Pennethorne's two-year immersion among Gothic mouldings, and represents a type of structure favoured throughout early-19th-century Europe: an expression of pure architecture, untramelled by practical considerations, combining both neo-classical abstraction and patriotic zeal. Nash had himself produced several such schemes in 1817 ([23]). They may have inspired Pennethorne's design, which consists of a plain square cruciform Greek Doric building approached by low flights of steps with a tall round tower springing out of a circular temple and surmounted by a victorious winged figure. For all its awkwardness and even absurdity, the design gives an indication of Pennethorne's tastes at the start of his career.

By 1824 Pennethorne had reached the age of 23, but his training had still been limited to surveying, draughtsmanship, and Soane's lectures at the Royal

Academy schools. This training sufficed for many early-19th-century architects, as indeed it had for Nash himself, but for most ambitious young men it was no substitute for an Italian tour ([24]). Several leading early-19th-century architects, including Sir John Soane and Sir Robert Smirke, had spent time abroad, and, with the opening up of the Continent after the defeat of Napoleon, a new generation followed in their footsteps. Some even went to Greece. C. R. Cockerell visited Italy in 1815-17, having already been to Greece, and the young Charles Barry broke new ground by visiting both Greece and Egypt ([25]). By 1824 both Barry and Cockerell had begun to receive the commissions which laid the foundations of their later careers. Nash clearly hoped that Pennethorne's practice would develop on similar lines, and in the autumn of 1824 he sent him to the Continent for two years ([26]).

The first destination was Rome, which Pennethorne reached by way of Paris and Bologna on 10 December 1824. On arrival he began an intensive course of study of the chief monuments of Roman antiquity. The 1820s was an exciting time for a young architect to visit Rome. Cows still grazed among the broken columns of the Forum as they had done for centuries, but systematic excavation was begun by the French in 1808. It continued under the supervision of Giuseppe Valadier, who uncovered the hidden bases of the Temples of Vespasian and Castor and Pollux, and restored the Arch of Titus in 1821 ([27]). The

ruins attracted not only architects but also artists, like Nash's friend J.M.W. Turner, who sketched them in 1819 before translating his vision into oil paintings.

Pennethorne was trained in the same way as the young French architects sent to Italy under the Prix de Rome system ([28]). There is no indication of who taught him, but a letter to Nash makes it clear that his training set little store by originality or fresh discovery. Much of the time was spent doing detailed measured drawings and conjectural reconstructions of the recognised monuments of ancient Rome. Pennethorne thought that it was "excellent practice to endeavour to follow the ancients through the whole of their designs, and without doing this it is impossible to have any idea of their grand conceptions, or indeed the mathematical correctness of all their proportions" ([29]). But he soon came to see the limitations of this rather sterile training, and in another letter he told Nash that he was seeking out and measuring not only the best-known Roman ruins but "all the remains" ([30]). His study of ancient Roman architecture provided the foundation of his mature style when it eventually emerged after many years. In the meantime he wrote up his observations on the architecture of ancient Rome in a series of notebooks which he sent to Nash (Plate 3). These comments were never published, and have only recently been rediscovered. They are interesting both as an indication of his own emerging taste, and as a synthesis of current knowledge.

Pennethorne looked at Roman architecture with eyes trained in the aesthetic climate of neo-classicism. He believed that architecture had emerged from a state of rude but impressive simplicity to a state of near-perfection in the first century of the Empire, only to sink into increasing decadence and frivolity in later years, reaching its final nadir under Constantine. The early Ionic temple of Fortuna Virilis was admired for its "great Simplicity and Strength", obtained "... by giving great boldness and decision to all the Mouldings, with but scarce any Ornament". The later temple of Castor and Pollux in the Roman Forum, was to Pennethorne "the most beautiful specimen of architecture in Rome", its beauty resulting from a marriage of "richness" and "repose": "... compare it only to the Farnese and many other Palaces of Rome, the pride of modern Italy - and they appear nothing to it". The portico of the Pantheon, which we now know was built over a century later, was in his mind "the perfection of Roman Architecture". It possessed "... a grandeur which is infinitely beyond the pleasing, which is a very different character", while the colourful interior must originally have been "beautiful beyond belief ... though nobody can be a greater Advocate for the Purity & Simplicity of Architecture than myself, ... I would defend [the use of colour] as always congenial to our feelings, every body being pleased with the appearance of riches". But he deplored what he saw as the fussiness, excessive ornamentation and perverse

interpretations of classical forms in Nero's "Golden House", and he was quite scathing about some of the buildings of the later Empire. He thought the plan of the Baths of Diocletian was "very fine", but of the very influential vaulted Basilica of Maxentius (then known as the Temple of Peace) he could only say that the details were "not worth a memorandum", adding pedantically that the cornice was in itself "a decided proof of decay", with its fascia omitted entirely, and its cyma reversa "sculptured in a way to disgrace even Constantine".

Pennethorne's notebooks reveal an architectural philosophy which remained with him for the rest of his life: a belief in simple, intelligible systems of proportion, a love of bold effects, tempered by rich detailing, a meticulous adherence to the language of the orders. His rather Gibbonian preference for early Roman architecture over its later manifestations is not surprising in view of the neo-classical climate in which he grew up. The superiority of strong and vigorous early styles over what were seen as the effete and debased later developments had been a commonplace of architectural thought ever since the dethronement of the Baroque and Rococo in mid-18th-century Europe ([31]). The new austere philosophy found an appropriate mode of expression in the language of the Greek Revival.

Pennethorne later regretted not visiting Greece, though he did see the Greek temples of southern Italy and Sicily in the summer of 1826 ([32]). He thought that

"Roman architecture never could boast of any great purity either in its proportion of details - not even in the Augustan age - beautiful as were some of its examples". But he was not a complete purist, and he believed that it was possible for the 19th century to improve on the architecture of the ancients. The Roman aqueducts, for instance, could not "in any way for one Moment, stand in Competition with our Canals", and even the Pantheon lacked "a certain effect of greatness ... our custom of erecting towers and Domes ... must be an improvement and had we the same materials and the same purity in proportion and details our Architecture would now be superior to the Roman". It was this optimistic, eclectic spirit which informed his own buildings.

Meanwhile, the architecture of the Italian Renaissance could show the student how the principles of classical building could be adapted to modern uses. Interest in this period was reviving in the Europe of the 1820s. Before leaving for Rome Pennethorne called on C. R. Cockerell, who had recently returned from his foreign travels, "... and by his urgent advice I paid more attention to the palaces and modern architecture of Italy than to the works of ancient art" ([33]).

Only nine days after his arrival in Rome Pennethorne told Nash that "... the introduction of the Italian style of Palace into our street architecture would be quite new, and have a fine effect" ([34]). Barry was to do precisely this in his Travellers Club in 1829. In the

autumn of 1825 Pennethorne left Rome for an extended tour of northern Italy which enabled him to see the palazzi of Florence and Venice ([35]). His notebooks on Italian Renaissance architecture have been lost, but it is clear from a surviving list that he also studied the major buildings of the Roman Renaissance. Nor can he have failed to notice Valadier's recent remodelling of the Piazza del Popolo, the traditional entry into Rome, and his layout of the garden of the Pincio overlooking it, an enterprise of great interest to anyone concerned with the layout and remodelling of cities ([36]).

The other great source of Pennethorne's mature architectural style was Paris. The architects of 18th-century France were the true heirs of the Italian Renaissance. They demonstrated how the architecture of ancient and Renaissance Rome could be adapted and modified with new materials and technology to create a monumental yet serviceable public architecture appropriate for the modern age. Pennethorne may have visited Paris with the other pupils of Augustus Pugin in the early 1820s ([37]), and he certainly went there en route for Rome in 1824. He subsequently returned, and received further instruction in draughtsmanship which started late in 1825, and continued at least until April 1826 ([38]).

While in Paris he no doubt saw the great 18th-century buildings of Gabriel, Soufflot and Ledoux, and the still uncompleted Napoleonic projects like the new Rue de

Rivoli, the Arc de Triomphe and the Madeleine. They must have given him ideas about the unified and monumental treatment of grand urban spaces. The planning of his later public buildings suggests that he was also acquainted with the strongly rationalistic ideas of Durand, who was teaching at the École Polytechnique in the 1820s.

The most tangible result of Pennethorne's foreign tour was a conjectural restoration of the Roman Forum. Many schemes of this sort were made in the late 18th and early 19th centuries. Cockerell's reconstruction of the Forum was exhibited at the Royal Academy in 1819 (39). Pennethorne's design - very different from Cockerell's - first emerged in a pen and wash sketch dated 1825 (Plate 4). It was subsequently elaborated in a large watercolour (Plate 5) dating almost certainly from after his return to England (40). His scheme has some of the characteristics of the architectural "sublime". This is especially marked in the larger picture, where massive buildings dominate tiny groups of people. The topography is not at all easy to determine in either picture. The Capitol seems to be on the right, and the Palatine on the left, with the foreground occupied by two huge columns (in the larger picture) and a massive building not unlike Elmes's later St. George's Hall in Liverpool. A basilica occupies the middle distance, while to the left there is a huge palace with towers such as Pennethorne himself was to use in his scheme for the

Government offices of the 1850s.

Archæological research was beginning to show that the Forum was less spacious than Pennethorne indicated in his drawings, and that some of the buildings did not exist in the form he imagined. His scheme should therefore be judged not as a picture of what imperial Rome actually looked like, but as an exercise in architectural experimentation and idealised civic planning. Contemporary architects were putting such ideas into effect in Edinburgh, Berlin and St. Petersburg, and in his drawings Pennethorne showed an understanding of monumental architecture in its urban context which was to be of great value to him later. His design attracted enough attention in Rome for him to be elected a member of the Academy of St. Luke, the oldest of Rome's artistic academies, in April 1826, and his interest in ancient Rome remained with him for the rest of his life ([41]).

Pennethorne returned to London at the end of 1826, and immediately began working again in Nash's office. Two years later he became his "chief assistant" ([42]). This role was an important one. In his later years Nash was more the leader of a design team than a meticulous "art architect" responsible for every detail of the buildings that bore his name. Much of the detailed work was contracted out, or placed in the hands of subordinates who turned his inventive but often hastily conceived drawings into detailed working plans ([43]). Someone had to be responsible for co-ordinating this

work. In the early part of the 19th century Nash had relied greatly for the everyday management of his office on the assistance of James Morgan whom he had met in his years in Wales. Later he employed George Stanley Repton, the youngest son of Humphry Repton, but Repton made a lucrative marriage and concentrated on his own country-house practice in the 1820s ([44]). When Pennethorne returned from Italy therefore the place of office assistant was vacant.

By the 1820s Nash's practice was made up of two distinct types of commission: the design of individual buildings, and the management of the Government's schemes for the improvement of London. By far the most important of the new buildings was Buckingham Palace. George IV's project to create a new palace out of the former Buckingham House ran into difficulties from the very beginning, and the design had to be repeatedly modified to cater for the whims of the monarch. Pennethorne was drawn into the Buckingham Palace morass from the moment he returned home from Italy. In January 1827 he was making accounts and negotiating with Joseph Brown, the supplier of marble for the triumphal arch which was to stand at the entrance to the building from the Mall ([45]). There is no evidence that he contributed anything to the design of the palace, but it is possible that he played some part in the design of the internal decoration ([46]). Unfortunately, though, very few drawings survive, and the precise extent of his work will probably never be known.

With Nash's time taken up almost exclusively with the Palace, Pennethorne's main task was the management of the remaining Metropolitan Improvements. The original schemes were now nearing completion. Regent Street had been largely built up and the terraces around the Park begun ([47]). It was only at the southern end that much still remained to be done. Regent Street was originally designed to end in a spacious square facing Carlton House. George IV's decision to move his main London residence to Buckingham Palace made Carlton House superfluous, and under an Act of Parliament of 1826 it was demolished and its site placed in the hands of the Commissioners of Woods and Forests with a view to its being profitably developed for "Dwelling-houses of the First Class" ([48]). Nash was asked to prepare a design for these houses, and in the summer of 1826 the sites in what became known as Carlton House Terrace were being offered to would-be lessees ([49]). The houses (Plate 6a) overlooked St. James's Park, which he proceeded to lay out on Picturesque lines ([50]).

Further east, Nash had already prepared plans outlined in the New Street Act of 1813 for linking the southern end of Regent Street to Whitehall and the Strand, and creating a new open space - now Trafalgar Square - on the site of the old King's Mews. A new street (Duncannon Street) was to be built alongside St. Martin in the Fields to connect the northern side of the new square to the Strand, and a large block of property

at the west end of the Strand laid out with streets, houses and shops ([51]). The development of Trafalgar Square did not work out as Nash intended, but the "West Strand Improvement" was carried out along the lines he had proposed, and he himself sketched out the design of the large block of shops and houses with the celebrated "pepper-pot" turrets at the junction of the new Duncannon Street and the Strand, work on which began in 1830 ([52]).

Once Nash's plans had been approved, his office staff had to negotiate the purchases of property, let the ground to builders, supervise the elevations of the new buildings and draw up their leases when completed. Nash delegated most of this routine work to Pennethorne who, as principal assistant, was brought into "almost daily communication" with the Commissioners of Woods and Forests ([53]). He was especially closely involved with the Strand improvements, the building of Carlton House Terrace, and the layout of St. James's Park, where he "set on the ground" the walks and gardens ([54]). It is impossible to be certain how far this close involvement extended to matters of design. By late 1826 the main elements of the schemes had already been worked out, and in some cases published. It seems unlikely that, having sent him to the Continent for two years at great expense, Nash would have made no use whatsoever of Pennethorne's architectural talents and discoveries, but it would nevertheless be wrong to see him as "ghost" behind the older man's later works. It was not until Nash's virtual

retirement to the Isle of Wight in 1830 that Pennethorne began to emerge from the shadow of his master ([55]).

The most impressive of the later works is Carlton House Terrace. Here Pennethorne gained his first experience of managing a major building project. Nash produced his final elevation to St. James's Park in April 1827 ([56]), just after the younger architect had returned from Rome. In view of Pennethorne's recent travels it is tempting to see his influence in the impressive facade, influenced by Gabriel's blocks on the north side of the Place de la Concorde in Paris, but harking back to Perrault's east facade of the Louvre and, ultimately, to Imperial Rome (Plate 6b). But it was Nash, the creator of the equally spectacular Cumberland Terrace in Regents Park, who signed the drawings, and he was still involved in the design of the plaster enrichments to the pediments as late as 1831 ([57]). Pennethorne's creative contribution was probably limited to the layout of the surrounding areas and to the internal design of some of the houses.

Work on the terrace began in mid 1827, and continued until the autumn of 1830. Internal arrangements were the responsibility of individual lessees, who could choose their own architects. But the sites were not all taken immediately, and in order to ensure that the whole terrace was built quickly, Nash acted as speculative developer for some of the sites himself, as he had earlier with the whole of the Regent Street quadrant

([58]). The speculative houses included those on either side of the central opening, where the Duke of York's column now stands (the present nos. 9 & 10), and also no. 7, which was nominally leased to Pennethorne. Some heavy neo-classical chimney pieces in this house are similar in character to others Pennethorne is known to have been designed later in the 1830s ([59]). He was also closely involved with the internal design of no. 11, for Lord Monson, signing the drawings and supervising the work himself, while at no. 10 he was employed by Sir Matthew White Ridley in October 1831 to add a bathroom, which was to be "similar to the one in Mrs. Nash's dressing room" ([60]). It seems reasonable therefore to attribute the overall internal design of these houses to Pennethorne and not Nash.

Pennethorne was also involved in the layout of the areas surrounding the new terraces. His first signed plan, dated 4 Aug. 1828, shows the layout of the public gardens which it was then intended to make between the houses and Pall Mall, together with the internal plans of the houses themselves and the names of each lessee ([61]). The space was eventually appropriated by the clubs which began to be built along Pall Mall, starting with Nash's United Services Club of 1826, and the original design for the gardens was abandoned. But Pennethorne supervised the making of the "opening" from Waterloo Place to the Mall between the two main terrace blocks on either side of Benjamin Dean Wyatt's Duke of York's column in 1832

([62]). He was also employed by some of the lessees to arrange the internal fittings in the stable block built at the eastern end of the site in 1830-2 ([63]).

Carlton House Terrace brought Pennethorne into contact with some important and influential public figures. They included the financial expert J. C. Herries, financial secretary to the Treasury from 1823 to 1827, and chancellor of the exchequor in Goderich's short-lived ministry in 1828. He took a house in Carlton Gardens, to the west of the terrace, and Pennethorne later remodelled his country house in Kent and benefited from his influence as a member of the Select Committee on Metropolitan Improvements in 1838; this led directly to his first full-time employment as government architect. Herries even became godfather to one of Pennethorne's children. Pennethorne also formed a close connection with the lessee of no.7 Carlton House Terrace, John Hanning. Hanning already knew Nash, and in 1837-8 his son commissioned Pennethorne to rebuild his house at Dillington (Somerset) in 1837-8.

After Nash's withdrawal to the Isle of Wight in 1830, Pennethorne was left in charge of the London office. He took over at an unfortunate time. With the death of George IV, Nash lost the royal patronage which was vital to his success. He also faced sharp criticism about the rising costs of Buckingham Palace in which the new king, William IV, refused to live. Public spending became a major political issue during the 1820s, and concern

reached new heights against the background of social distress and vociferous demands for Parliamentary reform. With the Whigs now in power, there were loud demands for administrative reform, and the Offices of Woods and Works did not go unnoticed. Nash had already been questioned by a Commons Select Committee in 1828 and his speculative building schemes on Crown land had come under the scrutiny of another in 1829. He came out of these investigations relatively unscathed, but in 1830 he was dismissed from his post of attached architect to the Office of Works, and work on the Buckingham Palace was suspended ([64]). His conduct of the works at the Palace was subjected to the scrutiny of another Select Committee in March 1831, in which Pennethorne gave evidence about the contracts, and the purchase of stone. The Committee found that Nash had not used "proper caution" in framing his estimates, that he had made "improvident contracts with tradesmen" and that he was altogether guilty of "inexcusable irregularities and great negligence" ([65]). The completion of the Palace was placed in the hands of the safe but mediocre Edward Blore.

Nash's reputation did not recover from these blows. When the Select Committee reported in 1831 he was aged 79, and had already largely retired from active practice. The last executed work which can be firmly attributed to him is the parish church at East Cowes in the Isle of Wight, built near his "Castle" in 1831 ([66]). A surviving diary for the year 1832 shows, though, that he had by no

means given up all interest in architecture and that he continued to keep a firm control over his office accounts ([67]). He spent March, April and May in London at the height of the final Reform Bill crisis, and saw several of the occupants of the houses in Carlton House Terrace. He also inspected the progress of the remaining Metropolitan Improvements, and showed a model for a proposed National Gallery in Trafalgar Square to the Prime Minister, Lord Grey, and the First Commissioner of Woods and Forests, Lord Duncannon.

The small quantity of architectural work now remaining was handled by Pennethorne. His own diary for 1832 shows that he had frequent dealings with Nash's patrons and craftsmen, and with other architects who had spent time in Nash's office, like George Stanley Repton and James Morgan. He also helped Nash prepare the final accounts for Buckingham Palace, made some drawings for repairing the tower at Killymoon Castle (Co. Tyrone), and was involved in Nash's project for a new National Gallery, which was eventually set aside in favour of the present design by William Wilkins ([68]).

Nash's last new commission of any size was for a "bazaar", or set of shops, built on Crown property on the corner of St. James's Street and King Street in the heart of the fashionable West End. The promoter was William Crockford, a millionaire gambling-club proprietor, "more machine than man" ([69]). His premises at 50-53 St. James Street, recently designed by Benjamin Dean Wyatt,

attracted the kind of rich and flashy clientele from which Nash had derived some of his earlier work. Crockford approached Nash first, but Nash delegated the design to Pennethorne, who prepared a set of drawings in June 1830 and was describing himself in 1831 as Crockford's architect ([70]). The bazaar, completed in 1832, therefore ranks as Pennethorne's first independant commission (Plate 7).

The two-storied stuccoed building (since altered) had its main elevation to the newly-widened King Street, where a Tuscan colonnade gave access to a staircase leading upstairs to a large room 200 ft. long - an arrangement more reminiscent of the great auction rooms, like Christie's at the other side of King Street, than of retail establishments today. Outside, the building was in its original form a competent essay in the Nash manner, and Nash may well have provided direct advice in the early stages of the design; he was certainly interested enough in the building to visit it just after its completion in April 1832 ([71]). There is certainly none of the Italianate flavour introduced by Barry in the nearby Travellers' Club only two years earlier, and the bazaar - never a commercial success - does not seem to have attracted very much notice.

In 1831 in an effort to establish an independant reputation, Pennethorne entered his first competition for a new Westminster Hospital on a site in Broad Sanctuary opposite the Abbey. In an effort to gain the commission

he solicited the help of Sir Matthew White Ridley, explaining that "for the last twelve months I have through the assistance of Mr. Nash been in business for myself although I manage his affairs as usual - and am building Mr. Crockford's Bazaar in St. James's Street & two or three minor works... - if I can succeed in this work [the Hospital] it will be such an introduction that I shall then be more confidant [sic] of success in my profession hereafter and I am proportionably anxious to obtain it" (72). But his appeal did not achieve the desired effect, and the commission went to William and Henry Inwood, the architects of St. Pancras church. Pennethorne's design, which has been lost, was exhibited at the Royal Academy in 1832 (73). His next attempt in 1832 to secure a commission for a large public building - the new Shire Hall and assize courts at Worcester - was equally unsuccessful (74). As T. G. Jackson later wrote, competitions were for most young architects "rather opportunities for practising design than openings for employment". The crucial first commissions usually came from friends, and friends of friends (75). Pennethorne's early career followed precisely this pattern.

During the summer of 1832 Pennethorne was closely involved in the completion of Nash's last speculation on Crown property to the north-east of Regents Park. The "Park Villages", with their picturesque villas dotted around a tree-studded landscape on either side of the Regent Canal, have long been recognised as playing an

important part in the development of the middle class suburb ([76]). The precise chronology, however, has never been clarified, and the designers of the individual houses have eluded detection. Nash prepared his first schemes for developing the area in 1823 (Plate 8a), partly for his own diversion, partly because no-one else seemed likely to take the land ([77]). Development dragged on until after his death in 1835, by which time the character of the project had changed ([78]). Nash's original proposal showed houses of a more cottage-like character than the smart detached and semi-detached villas eventually erected. While the layout is clearly due to Nash alone, Pennethorne was probably responsible for the design of some of the individual houses in Park Village West.

The first houses were built on the ground to the east of the Regents Canal (Park Village East), starting in 1825. Some may have been designed by Nash himself, but others seem to have been delegated to his assistants ([79]). Nothing was done in Park Village West until July 1832, when Nash told the Commissioners of Woods and Forests that he was about to enclose the ground leased to him there (Plate 8b) ([80]). In the following month Pennethorne recorded in his diary that he had "settled with Nixon [Nash's agent] for two houses in the village", and on another occasion that he had spent an evening sketching "cottages" there ([81]). It is almost certain that these ambiguous references relate to designs for

Park Village West, where the first houses were ready by September 1832 ([82]). They consist of a block of seven linked villas (nos. 1 - 7) with bargeboards and Gothic details, and a pair of spikey houses (nos. 18 - 19) in the Tudor manner used by Nash with great zest in some of his country houses (Plate 9) ([83]). Nash took a building lease of another part of the site in November 1833, after which it was divided into plots, and a tender for completing the loop road was accepted in March 1834 ([84]). A fortnight later he gave up his remaining private practice to Pennethorne, although as lessee of the ground he still retained an interest in the site ([85]).

The remaining houses were built between 1834 and 1837 on the northern part of the site. All were in the currently popular Italianate style. The most interesting of them (no.12) was built on a plot at the corner of the north side of the loop road, and was sub-let to James Johnson, physician both to Nash and to King William IV ([86]). With its porch carried up into a low octagonal tower, Tower House is a highly imaginative variation on the theme of the Italian rustic villa, and stands out from the run of speculative villas of the time (Plate 10a). It would be satisfying to attribute it to Pennethorne, but conclusive evidence is lacking. Since the house was built for Nash's doctor, it seems likely that special care was taken over its design. From what we know of Nash's design methods, that could have meant the preparation of drawings which would have been worked

up by someone else, probably Pennethorne. Equally, the 80-year-old architect could easily have turned the whole design over to Pennethorne, who examined the final lease after the house was finished in July 1834 ([87]). The last houses (nos. 8, 10-11 and 13-14) were not begun until after Nash's death in 1835, and although it is possible that they were built to his designs, it seems more likely that they were designed by Pennethorne or by one of Nash's other pupils, like Charles Lee, who had gone into partnership with James Morgan. Lee certainly designed no. 8, and signed a plan of Park Village East in 1836 ([88]). In its present form, therefore, Park Village West is the joint responsibility of Nash, Pennethorne, Lee and possibly others too.

While he was engaged on commissions which derived from the Nash office, Pennethorne also began to attract some relatively minor work in his own right. Soon after designing the St. James's Street Bazaar the promoter, James Crockford, asked him to carry out minor alterations at his house in Newmarket, an important part of his gambling empire ([89]). Pennethorne later said that Crockford employed him "largely" both in London and Newmarket, and that he introduced him to other patrons. They included two rather more reputable Newmarket figures, the Marquess of Exeter, "an old fashioned sportsman of the best school", and the Earl of Chesterfield, who "managed to run through a princely fortune, but certainly had some fun for his money" ([90]).

Pennethorne also did some work for the Ward family, neighbours and friends of Nash in the Isle of Wight. His lost diary of 1832 mentioned work for J. Ward, probably the banker brother of George Ward, who lived at Northwood House, Cowes, and in the summer of 1835 he was "staking out" Mr. Ward's house ([91]). It is not clear whether Pennethorne was referring here to the banker's house - which has proved impossible to identify - or to Northwood. But a collection of schemes for extending Northwood, an early-19th-century villa, contain some plans and elevations dated September 1832 which, though unsigned, could well be by Pennethorne. Ward obviously found it difficult to make up his mind, and commissioned both Charles Lee and George Mair, a pupil of Decimus Burton, to prepare more plans before the building reached its present Italianate form ([92]).

Some of the 1832 elevations for Northwood House are very like Pennethorne's first datable country house, Swithland Hall (Leicestershire), which was ready for occupation by 1834 ([93]). The house was built for George John Danvers, whose family had occupied a large gabled manor house in the the village south of Charnwood Forest for several generations. Danvers wanted "a mansion more suited to the taste of the age". He was heir presumptive to the Earl of Lanesborough, in the Irish peerage, and he took the title on the death of an unmarried cousin, the 4th Earl, in 1847 ([94]). There is no indication of why he chose Pennethorne, but the decision may have been made in

1832 when the architect is known to have visited Leicester ([95]). In its original form Swithland Hall was a Palladian villa in Grecian dress. The main reception rooms - library, drawing-room, morning room, dining room - are grouped in Palladian fashion around a central top-lit hall, and are sparsely decorated with plain ceilings, heavy marble fireplaces and, in some cases, cornices with an anthemion ornament. There is a Doric porch and the bays on either side of the centre are surmounted by pediments with acroteria (Plate 11a). But on the garden front there is a low three-storied tower surmounted by a pyramid roof, like the tower at the almost contemporary Tower House at Park Village West - a stroke of picturesque fancy which saves the building from dullness (Plate 10b). Later alterations removed much of the delicate charm of Pennethorne's design ([96]).

Pennethorne officially took over the remains of Nash's practice in March 1834. In a letter to the Commissioners of Woods and Forests Nash, now aged 82, stressed that the younger man was "acquainted with every detail" of Regents Park, Carlton House Terrace and Buckingham Palace. He also expressed the hope that employment could be found for him in connection with future Metropolitan Improvements, as well as in surveying Crown property in London ([97]). Pennethorne had already prepared some plans for continuing and extending Nash's schemes for street improvements in London, and in 1834 he proposed a scheme for building a major new east-west

street linking the City with the West End ([98]). This became a key feature in his later plans for remodelling the streets of central London. He was not given any formal appointment by the Commissioners for another five years, but he took over from Nash the responsibility of reporting on proposed alterations to houses in Regent Street and around Regents Park ([99]). Such survey work formed an important part of the incomes of many 19th-century architects; at the beginning of Pennethorne's independent career it must have been a useful addition to what was proving a somewhat meagre practice.

When Nash retired, Pennethorne moved out of no. 14 Regent Street, which was sold, and set up his own office at no. 26 Duke Street, St. James ([100]). He later settled at no. 2 Queen Square (now Queen Anne's Gate), Westminster - a respectable but not especially fashionable address ([101]). Soon after establising himself independently of Nash he married Frances, the daughter of Deane John Parker, a Canterbury banker, whose elder brother Henry, a tax officer, had married Nash's sister-in-law Grace Bradley in 1799 ([102]). The first of their eight children was born in 1835, when he wrote to J. C. Herries: "I thank you for your kind enquiries about my wife and my little Son whom I mean to call Deane Parker after his Grandfather - whom you probably I think must have often seen at the Treasury in Mr. Lushington's time - and whose Tory principles I hope he will inherit" ([103]). This is the only indication of Pennethorne's

political beliefs, which cannot have helped him in the Whiggish climate of the 1830s.

Nash's death in 1835 does not seem to have affected Pennethorne greatly. Nash's property, encumbered with debts, was left to his widow who took up residence at Hamstead, his "farm" in the Isle of Wight ([104]). After her death in 1851 this picturesque cottage orné became the home of Pennethorne's sister Anne and his younger brother John. John Pennethorne had entered Nash's office in the 1820s and subsequently went abroad at the older architect's expense, visiting both Greece and Egypt ([105]). His interests were scholarly rather than practical, and in 1844 he published a pamphlet on the mathematical principles which lay behind the architectue of ancient Greece. By that time a German, Joseph Hoffer, had published his own conclusions on the subject, and as a result John Pennethorne's pamphlet, and his subsequent book on The Geometry and Optics of Ancient Architecture (1878), made less of an impact than they might otherwise have done ([106]). John never practised as an architect, and he eventually settled down to the life of a dilettante country gentleman at Hamstead, where he "took to agricultural pursuits" ([107]). There is no evidence that his studies had any influence on James, and he seems to have resented James's attempts to direct them while he was abroad ([108]).

James now had to rely entirely on his own talents as an architect. He was in his mid 30s, but had not yet

designed a really important building, nor evolved a characteristic personal style. The competition for a new Houses of Parliament offered an opportunity to do both. In November 1835 he was busy preparing his designs, though with little hope of success, since there was, in his own words, "very good ground to believe already that promises of favor [sic] are made & the successful competitor can now be assumed - if not the two next - Barry is sure of a premium & expects the building - so at least I am told" (109). These fears proved justified, and in June 1836 Pennethorne seconded a resolution prepared by a group of architects convened by Cockerell, claiming that the choice of Barry's design had been made without "due regard to the merits of the others" (110).

Pennethorne's own design was Gothic. He believed that Elizabethan - the other stipulated style - was no more than "Romanized Gothic - a mixture of styles, picturesque, but at variance with all principle, and therefore inadmissible in a national work". By contrast, Gothic was "perfected in this Country; it is the most congenial [style] to our climate and feelings, and may be considered essentially NATIONAL; in effect it may be rendered equally grand and imposing with Grecian, and in science is perhaps almost equally correct" - an interesting statement from the future architect of the other great Gothic public building of early Victorian London, the Public Record Office. His drawings have disappeared, but it is clear from a contemporary

description that the buildings would have been arranged around a courtyard, with a symmetrical facade to the river dominated by a tower and spire like those of Flemish town halls, perhaps a foretaste of his Public Record Office tower. His design caused little public stir, and one critic said dismissively that it "might be mistaken for a large foreign cathedral" ([111]).

Pennethorne's failure to secure the Houses of Parliament meant that he was forced back onto country house work ([112]). His later houses were all designed in variants of the "old English" styles which had been so popular among Nash's clients, and which were being rapidly disseminated by architects like Burn, Salvin and Blore. Pennethorne's first essay in this manner was a remodelling of St. Julians, near Sevenoaks (Kent), the home of J.C. Herries. The Herries family had purchased the estate early in the 19th century, and a relatively small house had been built in 1818-20 near the site of the old manor house to the designs of John Buonarotti Papworth ([113]). Papworth's house - more like a rectory than a mansion - was a conventional yellow brick building in the neo-Tudor manner with a symmetrical entrance facade surmounted by three bargeboarded gables. Apart from some internal remodelling and redecorating, Pennethorne's main contribution was the rebuilding of the south front and the provision of those two popular features of the time, a carriage-porch and a conservatory (Plate 11b); the work was carried out in 1836-7 ([114]).

The new south front, of stone, was loosely Jacobean in style, with three projecting two-storied bay windows, and a roofline enlivened by curved gables. The alterations helped give both variety and intricacy to a house whose wooded setting already fulfilled many of the requirements of Picturesque taste.

Pennethorne drew on similar stylistic resources for his largest country house, Dillington, near Ilminster (Somerset). The patron here was John Lee Lee, the son of William Hanning, whose London house, no.7 Carlton House Terrace, had recently been completed ([115]). Lee inherited the Dillington estate in 1834, and in the same year he married the daughter of John Nash's friend, neighbour and business associate John Edwards. The marriage was an advantageous one, since Edwards's heirs stood to inherit substantial properties which included Welsh coal-mines ([116]). Edwards had been elected M.P. for Wells in 1831, and after his death in 1833 his son-in-law took over his political interest, and sat as M.P. for the constituency until 1837. His wife's connection with the Nash circle made Pennethorne a natural choice as architect, and the work began on the house in about 1837 ([117]).

Pennethorne's work at Dillington amounted to a "creative restoration" of the existing house, which was first built in the 16th century (Plate 12a). Like many houses of its date, Dillington had been extensively altered over the centuries. Pennethorne gave it a

homogeneous character based on the earliest work, as Nash had done at Parnham (Dorset) in 1807-11. He added a new south wing to match the existing range to the north, and reconstructed the main hall range with new mullioned and transomed windows and a striking array of gables(Plate 12b). Extra rooms were provided by filling in the space between the north and south wings on the eastern side of the house, making the main block into a "double pile" two rooms deep (Plate 13a). In its excellent craftsmanship - by unknown hands - in Ham Hill stone, and its elative severity, the house respects and complements the genius loci. It owes much to the Nash tradition, but the archaeologically correct detailing is a reminder of Pennethorne's training under A. C. Pugin, while his classical sympathies are perhaps evident in the complete symmetry of the facade and gardens, something rarely found in Nash's houses.

Internally, there is little stylistic consistency. The entrance hall and (present) dining room have Tudor details, like the stone screen in the hall (Plate 13b) and the ribbed ceiling with pendants in the dining room (Plate 14a); their character, though, is very different from that of genuine 16th-century interiors. Other rooms have classical marble chimneypieces, one of them a very ripe development of the neo-Grecian manner Pennethorne had employed at Swithland Hall (14b). If the interiors at Dillington are compared with those at the exactly contemporary Scarisbrick Hall (Lancs) by A.W.N. Pugin, it

will seen how far Pennethorne was from being an innovator in domestic design.

Pennethorne was involved in the remodelling of one more country house, Lamorbey Park, near Sidcup, Kent, where he is known to have carried out alterations for John Malcolm in the 1830s ([118]). A rectangular 18th-century brick building, Lamorbey had been rebuilt in 1812 by John Shaw, a local man who later became surveyor to Christ's Hospital, London, and architect of St. Dunstan-in-the-West, Fleet Street ([119]). Today the house has a Jacobean outline, with a flat roofline and an entrance front dominated by two tall projecting bays surmounted by strapwork ornament (Plate 15a). Such a scholarly use of the Jacobean manner would have been unusual in 1812, and it is tempting therefore to attribute the Jacobean refinements to Pennethorne, who employed a similar style in some of his later buildings.

John Malcolm also employed Pennethorne to design his first church, a "chapel" some distance away from the house, which was to serve the inhabitants of the hamlet of Halfway Street. A tall single-cell brick building in the conventional Tudor-Gothic style of the Commissioners' churches, it was lit by Perpendicular windows, and crowned by an impressive array of crocketed pinnacles (Plate 15b). The pre-ecclesiological interior, with its profusion of poppy-headed bench ends, did not satisfy the liturgical tastes of the next generation, and the building was demolished in 1873 to make way for a church

by Ewan Christian ([120]).

The design of country houses did not provide a very satisfying outlet for Pennethorne's architectural talents. He had a better opportunity to develop his skills in the design of two London churches, Christ Church, Albany Street (1836-7), and Holy Trinity, Grays Inn Road (1837-8). They were the first of his buildings to give any real indication of his abilities.

Christ Church was built to serve the largely artisan district laid out by Nash to the east of Regents Park, close to the Regents Canal basin. Its immediate neighbour on the other side of Edward (now Redhill) Street was Nash's Opthalmic Hospital, a building of unusual gravity and severity for that ebullient architect; the Nash connection no doubt accounted for the choice of Pennethorne as architect. The church was sponsored by a group of laymen and built cheaply with the help of £1000 from a new fund sponsored by Charles Blomfield, Bishop of London, for building churches in the poorer districts of the metropolis ([121]). The first incumbent, William Dodsworth, was a Tractarian who became a member of the Ecclesiological Society. But so far as Christ Church was concerned, Pugin and the Gothic Revival might never have existed. It is not even correctly orientated, and the altar faces north. The interior, like Nash's All Souls Langham Place, consists of a large, regular rectangular room divided up by blocks of pews, with galleries around three sides, and no structural

chancel (Plate 17b) - the very antithesis of the Camdenian ideal, [illegible] ([122]). At first the interior must have been austere in the extreme, but a succession of alterations gradually made it more appropriate for Tractarian worship ([123]).

The main interest of Christ Church lies in Pennethorne's treatment of its uncompromisingly classical exterior (Plate 16). By the late 1830s the Church of England had largely turned away from classicism in church design, and ecclesiology was about to sound its death-knell; the church therefore stands at the very end of a tradition of Anglican building going back to Wren ([124]). The need to keep costs down must have influenced the choice of material, yellow brick, and also perhaps the decision to leave out the portico found in many of the classical churches built since 1815. In his Roman notebooks Pennethorne had deplored the current practice of tacking porticoes onto buildings without integrating them into the overall design; here he dispensed with a portico altogether. The building is in fact an austere essay in classical abstraction, drawing on Grecian sources. Visually, it is held together by Doric pilasters or antae, under a heavy entablature broken up by circular paterae along the frieze. The four corners are carried up into pylons or low towers, and these appear to anchor the building to the ground, as in

Schinkel's Guard House in Berlin 1816-8. Each contains a tall doorway with the canted jambs in the Grecian manner. There is a similar doorway in the south or entrance front, contained within an outsize Doric frame or aedicule (Plate 17a). Above, there is a tall slim tower modelled on the upper stages of Wren's St. Mary le Bow, and surmounted by a slim spire.

Holy Trinity, Grays Inn Road, (now demolished) was begun in 1837, the year that Christ Church was consecrated. Like Christ Church, it served part of the ancient parish of St. Pancras. Cheapness was once more an important consideration. Grays Inn Road ran through an area of early-19th-century artisan and middle-class housing, some of which was developed by Thomas Cubitt as one of his first speculations. The church stood on a former burial-ground attached to St. Andrew's Holborn, and money came from the Incorporated Church Building Fund ([125]). Despite some similarities, Holy Trinity was by no means a copy of the Christ Church. It was smaller, and inside there were no galleries ([126]). Externally, there was only one important facade, to the street (Plate 18). Its dominant feature was a massive pedimented aedicule like that in the entrance front of Christ Church. It contained the main doorway, surmounted by a large semicircular tympanum within a bold relieving arch. The plain brick walls above the side doorways contained geometrical symbols - triangles in circles - presumably referring to the Trinity. The tower was starker and

simpler in feeling than that of Christ Church, and was surmounted not by a spire but by a dome with a cross. The facade, though severe, shows an original mind at work, and was praised by W. H. Leeds on the grounds that "... although small, it possesses some originality, as well as consistency of style and chraacter - and so far is greatly preferable to those mawkish pseudo-Grecian structures, compounded of portico and meeting-house stuck together" (127).

Pennethorne's churches play an important part in his development as an architect. With the exception of Crockford's bazaar, which emanated from Nash's office and bears the marks of the Nash style, they marked the first opportunity he had to design large public buildings in London. The contrast to the houses in Park Village West - or even to Nash's nearby All Souls Langham Place - is very instructive. Nash appeals to our sense of the picturesque; Pennethorne looked below the surface of ornamental form to find an underlying order, harmony and power. Here lie the roots of his mature style.

In 1838, the year of Holy Trinity's consecration, Pennethorne appeared before a Commons Select Committee on Metropolitan Improvements and submitted his plan for a new east-west street linking the City and the West End. In the same year the old Royal Exchange, which stood on one of the most prominent sites in the very heart of the City, burnt down. The new building was to be funded in part with revenue from the London coal duty, and the owners of the site - the Gresham

Trustees - decided to hold an open competition like that for the Houses of Parliament ([128]). Pennethorne entered the competition, and his design was placed fifth among those which the assessors thought buildable within the £150,000 cost limit ([129]).

Coming soon after his two London churches, Pennethorne's scheme for the Royal Exchange (Plate 19) marks his debut as a designer of monumental classical public buildings. It was an essay in the style of the early Roman Empire which the architect had so admired when he was in Italy. The building was to surround a rectangular courtyard but the dominant feature, as seen from the west, was a deep octastyle Corinthian portico surmounted by a low pediment adorned with acroteria, like that of the Temple of Mars Ultor at Rome ([130]). A tall square tower topped by a Corinthian colonnade rising above the eastern side of the building was clearly intended to take its place among Wren's towers and spires which still at that time dominated the City's skyline. Apart from the tower, the design is not unlike that by William Tite which was eventually selected after much acrimony by the Gresham Trustees in 1840. But it shows a subtler and more scholarly mind at work. The portico is narrower and less overwhelmingly massive than Tite's, and the wall surfaces are plainer. There is something of the sober intensity of St. George's Hall in Liverpool. Lacking the staginess and charm of Nash's buildings, and the Baroque drama of C. R. Cockerell's well-known

rejected scheme, Pennethorne's design gives a clear idea of the direction in which his architectural talent was developing in the late 1830s.

The Royal Exchange design was exhibited at the Royal Academy in 1840 ([131]). It was Pennethorne's last Academy entry, and, as it turned out, his last competition entry too. On 10 October 1839 he was appointed joint architect and surveyor for Metropolitan Improvements to the Commissioners of Woods and Forests, and from then on he shed his remaining private practice ([132]). This was the crucial event in Pennethorne's career. For the next six years he was almost exclusively preoccupied with the design of new streets and parks in London. The aftermath of these schemes lasted for many more years, and when his career as an architect resumed, his talents had to find an outlet under the probing scrutiny of civil servants, politicians and, ultimately, of their capricious masters, the British public.

1. J. Bridges, The History and Antiquities of Northamptonshire, ed. P. Whalley, vol.2 (Oxford 1791).
2. Family papers. Thomas Pennethorne's wife was Ann,

(d.1799), daughter of John Walton, a schoolfellow of David Garrick in Staffordshire. The Waltons are said to have been descended from Isaac Walton the writer.

3. Universal British Directory iv (1798) p.862,;Worcester Directory (1820) p.56. The family name was sometimes spelt Penithorne, Pennithorne or Pennythorne.

4. James's baptismal record is in Worcester County Record Office, x.850 Worcester St. Nicholas BA 3790/1b. The other children were Anne (b.1800), Sarah (b.1803), William (b.1804), Elizabeth (b.1805), and John (b.1808).

5. James Pennethorne's great-aunt Mary Gregory (nee Walton) was Mary Ann Bradley's grandmother: J. Summerson, The Life and Works of John Nash, Architect (1980), pp.20,151. There is no documentary evidence for the legend, still sometimes repeated in print, that James Pennethorne was an illegitimate son of the Prince Regent by Mrs. Nash.

6. The Farington Diary, ed. J. Greig, viii (1928) p.302, 5 Nov. 1821.

7. Worcester Directory.(1820), p. 56; Pigot's Commercial Directory (1822-3), p.581.

8. His assets were worth less than £800: Worcs. R.O. probate records, box 710, May-Aug 1843, will proved 22 June 1843; Bentley's History, Gazetteer & Directory of the Borough of Worcester (1841) pp. 119, 150.

9. M. Billing, Directory & Gazetteer of Worcestershire (1855), p. 51. "The Misses Pennethorne" do not appear in

later Worcester directories.

10. Album of "Sketches from Nature" by Thomas Pennethorne, sold at Christie's, 14 June 1983, lot 6.

11. His sketches were bound together in five volumes by his brother James after his death. These volumes were sold at Christies on 14 June 1983, and subsequently dismembered.

12. The Farington Diary, viii (1928) pp.301-2. According to family tradition Ann's younger sister Sarah played the harp before George IV at the Brighton Pavilion.

13. C. Knight, English Cyclopedia iv (1857), col.730. The article was contributed by Edward Hall, F.S.A. in consultation with Pennethorne.

14. Summerson, pp.56 et seq., 96 et.seq.; J.M. Crook & M.H.Port, The History of the King's Works vi (1973), pp.109-10. Nash had been made sole Surveyor of the King's Works on the death of James Wyatt in 1813, but as a result of the reorganisation of the Office in 1815 the responsibilities were divided.

15. Knight, col. 730; RIBA Trans 1856-7, appendix, p. 9.

16. Summerson, p. 177.

17. J. M. Crook, "The Pre-Victorian Architect", Architectural History xii (1969), p. 66.

18. H. M. Colvin, Biographical Dictionary of British Architects (1978), p.667. Nash paid Pugin £202.4s.7d. from 22 Dec. 1821 to 14 Jan 1823: RIBA, MS NAS/1, f.49.

(Nash's office ledger).

19. B. Ferrey, Recollections of A.W.N.Pugin (1861) pp.6-8, 26-8.

20. Some drawings for these volumes survive in the RIBA drawings collection, including a sketch of the construction of the octagon of Ely Cathedral; "Gothic Specimens" ii, f.108; iii., f.33 . See A. Wedgwood (ed) RIBA drawings catalogue: Pugin (1977), p.18-19.

21. A. Graves, Royal Academy Exhibitors, vi. p. 101. The Westminster Abbey drawing is in the possession of a descendant of the architect.

22. The drawing was sold at Christies on 14 June 1983, lot 137.

23. Summerson, p. 183.

24. For the training of early-19th-century architects, see F. Jenkins, Architect and Patron, Manchester (1961), and J. M. Crook, loc. cit., pp,.62-66. Pennethorne was enrolled in the Royal Academy schools: S. C. Hutchinson, History of the Royal Academy, 1768-1968 (1968), p.102.

25. D. Watkin, The Life and Work of C. R. Cockerell (1974), p. 8-17; M. Binney, "The Making of an Architect: The Travels of Charles Barry", C.L. 28 Aug. 1969, pp.494-8.

26. A. Cates, "A Biographical Notice of the late Sir James Pennethorne", RIBA Trans xxii 1871-2, pp.53-4. Knight's assertion (op.cit). that the tour began in 1825 is disproved by the other sources.

27. M. Grant, The Roman Forum (1974 edn.) pp.197-200.

28. L. Hautecoeur, Rome et la Renaissance de l'Antiquité (Paris, 1912), pp. 133-142.

29. Quoted in RIBA Trans 1871-2, pp.53-4.

30. Notebook on "Roman Architecture from its infancy to its Perfection under Augustus", in the possession of Peter Laing, a descendant of the architect.

31. "Remarks on the Architecture of the Ancients" [1761], D. Irwin (ed) Winckelmann: Writings on Art (1972), p.87. The alleged degeneracy of latter Roman architecture was a commonplace of early 19th-century architectural criticism.

32. RIBA Trans 1871-2, p.54. An oil painting in the possession of the family shows the rescue of a fellow student from a shipwreck off the coast of Sicily.

33. RIBA Trans 1856-7, p.8.

34. Letter formerly in the possession of James Pennethorne of Richmond, transcribed by Sir John Summerson in 1933, but since lost. I am grateful to Sir John for allowing me to consult his notes.

35. RIBA Trans (1871-2),p.54.

36. S. Giedion, Space, Time and Architecture (Cambridge, Mass. 1967), pp.131-4. For Valadier, see also C.L.V. Meeks, Italian Architecture 1750-1914 (Yale 1966), pp.108-121, 147-8.

37. Charles Dickens (ed.), Life of Charles James Mathews (1879), p.45.

38. Album of drawings sold at Christie's on 13 Dec. 1984.

39. RIBA drawings collection, W5/22/2.

40. The large watercolour drawing of the Forum, formerly in the possession of Mr. Laing, was sold at Sotheby's on 30 April 1987; the smaller pen and wash drawing is in the possession of another descendant of the architect; a third drawing of the Pantheon is mentioned in a list of "heirlooms" once belonging to James Pennethorne of Richmond, but its whereabouts is unknown.

41. Builder, 16 Sept. 1871, p.717; RIBA Trans 1871-2, p.54.

42. RIBA Trans 1856-7, p. 9; Knight, col. 730.

43. Rep. Sel. Cttee on Office of Works and Public Buildings PP 1828 iv [446] p.47; Life of Charles James Mathews, pp.252-7.

44. Colvin, Dictionary pp.557, 678-9.

45. 2nd Rep.Sel.Cttee. on Windsor Castle and Buckingham Palace, PP 1831 iv [329] pp.88,110,319.

46. Summerson, p. 165-6.

47. A. Saunders, Regents Park (Newton Abbot 1969), p.102.

48. 6th Rep.Commrs. of Woods Forests,etc. PP 1829 xiv, p.12. See also [A.S.O.] "Carlton House Terrace, an early controversy" C.L., 9 Mch. 1951, p. 700.

49. Cres 2 /533; Summerson pp.167-8.

50. PP 1829 xiv, pp.12-13, and plan dated June 1827.

51. Summerson, pp.139-144; Hobhouse, pp.44-6.

52. The plans are in 5th Rep. Commrs.of Woods & Forests, PP 1826,xiv.p.12, and Appendix 23. The builder was

William Herbert, who may have modified Nash's elevations.

53. RIBA Trans. 1856-7, p. 9; Cres 2/1616.

54. 2nd Rep.Sel.Cttee. on Metropolitan Improvements, PP 1837-8, xvi [418], p.5. RIBA Trans 1856-7, p.9; 1871-2, p.54; Knight, col. 731.

55. Summerson, pp. 177.

56. Cres 2/533; T1/3512; MPE 891.

57. Cres 2/235, 21 Oct. 1831. Pennethorne's lost diary for 1832 mentions a meeting on 7 Aug. 1832 with the plasterer Francis Bernasconi at the terrace.

58. PP 1828 iv, p.73. The practice was condemned by a Select Committee in 1829; Rep.Sel.Cttee. on Crown Leases, PP 1829, iii [343] p.4.

59. Notes by Sir John Summerson from Crown Estate leases, in file on Carlton House Terrace in the National Monuments Record; NMR photographs.

60. NMR, Carlton House Terrace file; Northumberland R.O., ZRI 33/3. Pennethorne was also employed to lay out Sir Matthew's stables.

61. MPE 860.

62. Cres 2/534; Northumberland R.O., ZRI 33/3, 12 Aug. 1832.

63. Survey of London xxix, p. 429; M. Girouard, "A Sacrifice to the Ladies?", CL 29 Jan. 1959, pp. 198-9; Cres 2/235, 5 July 1832.

64. Kings Works vi. p. 274; Summerson pp. 179-181.

65. PP 1831 iv, pp.3-6, 9-16, 21-3, 37-9, 86-110, 315-9.

66. Colvin, Dictionary, p.582.

67. The diary is in the possession of Mr. Peter Laing.

68. MS notes by Sir John Summerson on Pennethorne's lost diary.

69. F. Siltzer, Newmarket: its Sport and Personalities (1923), pp.181-2.

70. Cres 2/647; Survey of London xxx p.438.

71. MS diary in possession of P. Laing.

72. Northumberland R.O., ZRI 33/3. The hospital had been founded in 1720: Weinreb & Hibbert (ed.) Encyclopedia of London, p.951.

73. Graves, Royal Academy Exhibitors, v. p.101. An almost Schinkel-esque Gothic design by Pennethorne for "Westminster College" was sold at Christie's on 14 June 1983, cat.no.140. Pennethorne is not known to have prepared any designs for Westminster School, and the drawing may be that for the Hospital wrongly inscribed. I have not been able to trace its present whereabouts.

74. Nash wrote to the Bishop of Worcester on Pennethorne's behalf in Aug. 1832, and Pennethorne mentioned the Assize Courts scheme in his own diary in Sept. 1832. The commission went to Charles Day, whose impressive Grecian building in Foregate Street went up in 1834-8.

75. B. Jackson (ed), Recollections of Thomas Graham Jackson (Oxford 1950), pp.84-5.

76. Summerson, Georgian London, (revised edn. 1969), p.185; Girouard, Cities and People pp.279-80.

77. Cres 2/778; MPE 911.

78. Cres 2/778; Cres 19/22, pp.194-5; MR 1905/3.

79. MR 1905/4; RIBA MS NAS/1, ff.102, 121. Charles James Matthews is mentioned in Nash's office ledger: RIBA MS NAS/1, f.203. J. Summerson, John Nash [illegible] (1949 edn), p.201, attributed the striking Gothic house at the northern end of Park Village East to Pennethorne. No documentary evidence was cited and the attribution is not repeated in the second edition of the book.

80. MS diary in possession of Mr. Laing; Cres 2/778, 12 July 1832.

81. Summerson notes on Pennethorne's diary.

82. Cres 6/155, pp.310-2; MR 1905/3.

83. Saunders, p.142-3, attributes the terrace to Pennethorne.

84. Cres 19/16, p. 43; /17, p.113.

85. Cres 19/16, pp.81-2; /17, p. 168.

86. T. Davis, The Architecture of John Nash (1960), p. 70; Survey of London, xxi, p.154.

87. Cres 19/16, p.216.

88. Cres 19/17, p.9; /22, p.119; MR 1905/2.

89. Knight, col.731; RIBA Trans 1856-7, p.10. The 18th-century house stands on the south side of Newmarket High Street opposite Crockford's "hazard saloon" (now an estate agent's office): Siltzer, Newmarket, p.184; R. Onslow, The Heath and the Turf (1971), p.43; information communicated by Canon Peter May.

90. Knight, col.731; Siltzer, Newmarket pp.87,233. Lord Exeter lived at Foley House, now an externally unpretentious stuccoed building with a central porch which may owe something of its present appearance to Pennethorne.

91. Summerson, Nash pp.150, 186; Kent R.O. U.543/E7, 24 August 1835.

92. The 1832 plans are in B.L.Add MS 18157; the others in Add MS 18158. See Pevsner and Lloyd, The Buildings of England: Hampshire and the Isle of Wight, (Harmondsworth 1967) pp.742-3.

93. RIBA Trans. 1856-7, p.10; Wm. White, Hist., Gazetteer and Dir. of Leics. (Sheffield, 1846), p.361; J. R. Potter, Hist. and Antiq. of Charnwood Forest (Leicester, 1842), p.141.

94. J. Nichols, Hist. of Leics., iii (2) (1811), p.1048; G. E. C. The Complete Peerage, vii (1929), p.426.

95. Northumberland RO, ZR1 33/3, 12 Aug. 1832.

96. Rainwater heads are dated 1852. There is no indication that Pennethorne was responsible for the alterations.

97. Cres 2/1616, 27 March 1834; Cres 19/16 pp.81-2, 9 April 1834.

98. 6th Rep.Met.Improvement Commrs. PP 1847 [661] xvi, p.5; T1/6693A/3774; RIBA Trans (1859) p.9; (1871) p.54.

99. e.g. Cres 26/34, pp.372, 388-90, 403, 424; Cres 19/19 pp.192, 304; Cres 6/163, p.333, quoted in Saunders, p.148.

100. Cres 19/16, p.179.

101. He was living there in 1839: Works 6/92. pp.6, 11-12.

102. Builder, 16 Sept. 1871, p.717; genealogical notes kindly supplied by a descendant of the architect.

103. Kent R.O. U543/E7.

104. Summerson, p.185; Kent R.O. U543/E7, 1 Jan. 1836.

105. DNB, John Pennethorne. Unlike James, John Pennethorne was mentioned in Nash's diary for 1835, in the possession of Mr. Laing.

106. DNB; W. H. Goodyear, Greek Refinements (1911), pp.3-5, 23, 35, 41.

107. Knight, col.731.

108. Two letters from John to James Pennethorne dated 15 and 18 Oct. 1833 and formerly belonging to James Pennethorne of Richmond, were transcribed by Sir John Summerson, who allowed me to see his notes. The whereabouts of the originals is unknown.

109. Letter to J.C. Herries, Kent R.O., U543/E7, 20 Nov.1835.

110. Catalogue of the Designs offered for the New Houses of Parliament (1836), p.15; M. H. Port (ed) The Houses of Parliament, (New Haven and London, 1976), pp.21-5, 30-32, 50-51.

111. Catalogue, pp.14-15; Architectural Magazine, iii, (1836), pp.201-2. The design, according to family papers in the possession of Mr. Laing, existed in the 1930s, when it was listed among the possessions of James

Pennethorne of Richmond, but has since been lost.

112. He was also working late in 1835 on the design of some churches in New South Wales, Australia; Kent R.O. U543/E7. There is no indication of whether these churches were ever built.

113. J. Newman, The Buildings of England: West Kent and the Weald (Harmondsworth, 1969), p.589; C. Greenwood, Epitome of Country History i. (1838), p.97.

114. Letters relating to the rebuilding survive in Kent R.O. U.543/E8.

115. The estate was purchased by John Hanning from the earl of Guildford in 1795. His son, William Hanning, married an heiress, Harriet Lee, and under the terms of the inheritance, their son, John Lee Hanning, took the surname Lee: Burke Landed Gentry (1952), p.347.

116. Summerson, Nash, p.27; National Register of Archives Report on Vaughan-Lee MSS.

117. RIBA Trans 1856-7, p.10.; typescript notes by M. Sheppard on Dillington House, based on A. W. Vivian-Neal, Notes on Dillington.

118. RIBA Trans 1856-7, p.10. None of Pennethorne's drawings for the house survive. B.N. Nunns, the writer of some notes on the house and estate prepared by the Local Studies Libraries of the London Borough of Bexley, suggests that the remodelling might be the work of John Shaw's son, another John Shaw.

119. Newman, p.528; Colvin, Dictionary, pp.728-9.

120. NMR photos; Newman, p.526.

121. "Christ Church Albany Street" (typescript available in the church); B. F. L. Clarke, Parish Churches of London (1966), pp.5, 140. The cost was about £6000: C. E. Lee, St. Pancras Church and Parish (1955), p.50. There is a full description and a ground-plan in Survey of London xxi, pp.150-2.

122. At least according to Ecclesiologist iv, (1845), p.54.

123. The first alteration took place in 1843 with the removal of the organ to the "west" end: Clarke, Parish Churches, p.141. Later embellishments were made by William Butterfield between 1853 and 1874: P. Thompson, William Butterfield (1971), pp.243, 447.

124. See, though, St. John, Clapham Road, by T. Marsh Nelson (1840), and St. Peter, North Kensington, by Thomas Allom (1855).

125. Survey of London xxiv, p.59; Lee, St. Pancras, p.51. The cost was about £7,200, and the builders Messrs. Pearce and Guerrier: Civil Engineer & Architects' Journal i. (1837-8), p.14.

126. N.M.R. photos.

127. W.H.Leeds, Illustrations of the Public Buildings of London, supplement (1838),p.xi. See also Companion to the Almanac (1838),p.219; (1839),p.222. The church was closed in 1928, and demolished in 1932: N.M.R. photos.

128. D. Watkin, Cockerell, p.208. The assessors were Robert Smirke, Joseph Gwilt and Philip Hardwick.

129. Guildhall Libr. MS 4952,ff.1-2,28. The four

architects placed above Pennethorne were William Grellier - the district surveyor of Whitechapel - Alexis de Chateauneuf - a pupil of Schinkel - , Sydney Smirke, and T. H. Wyatt. Several of the designs, including that by C. R. Cockerell, were judged to be too expensive.

130. A coloured perspective drawing survives in the possession of Mr. Laing.

131. Graves, Royal Academy Exhibitors, vi. p.101.

132. T1/6693A/3774, pp.40-1.

CHAPTER 2

(Footnotes on p.123)

METROPOLITAN IMPROVEMENTS

As the pupil and successor of John Nash, Pennethorne was no stranger to the idea of replanning London. Nash's imaginative schemes had enhanced the beauty of the capital, but they did not solve its problems of internal communication, still less the deeper social problems of which contemporaries were becoming more and more aware. For the first few years of his career as government architect, Pennethorne was almost totally preoccupied with these problems.

London's population doubled to some two million in the first 40 years of the 19th century, largely through immigration from an increasingly overpopulated and impoverished countryside. Most of the new arrivals settled in or near the centre, many of them in poorly-built houses in crowded, Hogarthian "courts" and alleys, where they found often intermittant and poorly-paid employed in small-scale craft industries and service occupations ([1]). Their voices have been immortalised by two of Pennethorne's contemporaries, Henry Mayhew and Charles Dickens.

As the slums grew, the middle classes

moved out and the suburbs expanded. The growth of suburban housing in the 19th century used up large quantities of capital, and helped create the London we know today. Suburbs led to commuting, which in turn caused increasing congestion in the central streets, where carriage, hackney coaches, stage-coaches and horse-drawn omnibuses jostled with pedestrians for limited space. Matters were made worse by the exclusion of through traffic from some of the grander private estates, and the charging of tolls on some of the bridges. The worst traffic jams occurred in the streets linking the City and the West End, and in those leading north from the bridges and the docks ([2]). The Embankment, New Oxford Street, Charing Cross Road, Shaftesbury Avenue and Kingsway did not exist - still less the Underground - and much of the traffic had to snake its way along narrow streets which had once been country lanes.

The problem of adapting old cities to changing needs was one faced by all the most economically advanced parts of Europe in the 1820s, 30s and 40s. In some cases, amelioration went hand in hand with architectural display. Pennethorne's contemporaries Karl Friedrich Schinkel in Berlin and Leo von Klenze in Munich conceived some of their finest buildings in the context of street improvement schemes ([3]). Even in Britain, major improvements were carried out in Edinburgh and Newcastle resulting in the creation of some of the finest architectural ensembles in the country ([4]). The

promoters of these schemes shared the belief that local or national patriotism demanded the rebuilding of city centres along spacious and monumental lines.

It was easy enough to evolve comprehensive plans for London's streets, as Wren and Gwynn had shown, but much more difficult to carry them out. For one thing, the city was a scattered one, with no single clearly defined central area. There were two centres, nearly two miles apart, and linked by streets which had first emerged in the Middle Ages ([5]). There was no single local authority in control. The City Corporation was jealous of its privileges, and outside the Square Mile, local government rested in the hands of the local vestries, many of them poor, or corrupt, or both. Like the great aristocrats who owned much of the land, they tended to put their own local interests before those of London as a whole. Street improvements were carried out by the City Corporation in its area of jurisdiction; outside, they devolved upon various ad hoc Improvement Commissions operating under special Acts of Parliament, or, failing that, on the central government.

Another major difficulty lay in the lack of an obvious and politically acceptable source of funding. Local rates and loans were rarely adequate to cover the huge costs of buying out owners and occupiers, and building the streets themselves. The City's ambitious programme of improvements which followed the building of London Bridge in 1825-31 was financed by a tax on coal

coming into the Port of London - a source used in the rebuilding of London after the Great Fire ([6]). These funds were not available for most of the Improvement Commissioners' schemes, and many of them foundered in consequence. The government was therefore forced to step in, either to supplement locally raised funds, or to sponsor major improvements itself. This happened for the first time with Nash's Regent Street.

Regent Street was carried out under a special Act of Parliament by the Office of Woods and Forests, which also managed the lucrative metropolitan estate of the Crown. In 1832, the Whigs merged the Office with the Office of Works, the body responsible for royal and government buildings. For the next 19 years the combined department exercised a bewildering range of responsibilities, ranging from the upkeep of the royal palaces to the collection of rents ([7]). It was managed by a Board made up of three Commissioners, one of whom, the Chief Commissioner, was a politician, and the other two civil servants. They shared the work between them, the Chief Commissioner taking responsibility for general policy and its presentation in Parliament, the Second Commissioner looking after public works, and the Third the Crown lands. The department was subject to strict control from the Treasury. It had to sanction all expenditure, even of the most trivial kind, before presenting it to Parliament, either in the annual request for Miscellaneous Expenditure or, in the case of larger

projects, in separate estimates ([8]). The Commissioners could be overruled by the Chancellor of the Exchequor, by his deputy, the Financial Secretary to the Treasury, or even by permanent officials ([9]).

As the influence of the Crown lessened, and Parliamentary control of the executive increased, it became less and less likely that an architect employed by the government would be able to use his position to push through magnificent plans like those of Nash. Nash had benefited from the support of George IV, and from the general climate of post-Napoleonic euphoria. That euphoria vanished in the later 1820s, as credit became more difficult to obtain. Despite unprecedented economic growth the years from the 1830s to the 1860s were marked by stifling restraint in public expenditure, which increased at a slower rate than the national income ([10]). The dominant political ideology favoured low public spending in order to free resources for the private sector. All early and mid Victorian governments wanted to balance the budget, to keep borrowing down and to keep taxes at a low enough level to stimulate enterprise. They were backed by an ever more powerful Treasury ([11]). Public improvements were judged on a strict profit and loss basis, and their financial benefits to the economy as a whole were not taken into consideration ([12]).

These factors applied to some extent through Europe, where one architectural historian has noted a

general loss of "urbanistic control" in the 1840s ([13]). British governments had to cope in addition with an eloquent and powerful public opinion which favoured official economy. When they showed signs of lapsing from economical practices, they could rely on the recently-reformed House of Commons to bring them back to financial rectitude. Select Committees and Royal Commissions proliferated. After 1832 governments could only govern by constant reference to the wishes of backbench M.P.s, the more vocal of whom could be relied upon to challenge grandiose and spendthrift projects. The provinces were economically strong, and their representatives resented taxpayers' money being spent on London. Public works were bound to suffer in such a climate, and in 1845 a writer in the Builder mournfully asked "... whether the history of the world affords an example of the capital of a great nation more neglected in the national councils, less indebted to government aid for its growth and progress, as a place of civilized abode, than London" ([14]).

The origins of Pennethorne's urban improvement schemes lie in the 1820s. With Regent Street nearing completion, Nash and the Commissioners of Woods and Forests had worked out plans for a further instalment of street improvements to be executed and funded by central government. The 5th Report of the Commissioners of Woods, Forests and Land Revenues, published in the year of Pennethorne's return from Italy (1826), recommended

four important schemes: the "West Strand" improvement, which included the making of Trafalgar Square; the construction of a new road leading in a straight line from Trafalgar Square to the British Museum; the improvement of the east-west route from Oxford Street through Holborn to the City by bypassing the inaptly named Broad Street, St. Giles; and the construction of a new east-west route from Piccadilly Circus along the northern side of Leicester Square through Long Acre and Lincoln's Inn Fields to Holborn ([15]). All would improve communications in the densely populated area between the West End and the City, just as Regent Street had linked Westminster to the fashionable districts to the north-west. Regent Street acted as a cordon sanitaire cutting off the West End from the shabbier districts further east. These neglected areas were to be the main focus of the most of metropolitan improvement schemes carried out by the Commissioners of Woods and Forests and their successors the Metropolitan Board of Works and the London County Council.

Shortages of funds prevented any but the first of Nash's plans from being implemented in his lifetime. By the time the West Strand improvements had been completed in 1835, at a cost of more than £1 million, George IV had died, and Nash had retired. His appointment as architect at the Woods and Forests was not renewed. The Whigs - in constant financial difficulties - refused to incur the expense of large-scale purchases

of property, or to continue to augment the funds from the Crown's land revenues by borrowing from the Consolidated Fund ([16]).

The Commissioners of Woods and Forests initiated only one major new street in the 1830s: Wellington Street, leading north towards Bloomsbury from the recently opened Waterloo Bridge. It was an ineffective attempt to solve a major problem: the increasing volume of traffic from the southern streets which disgorged into the narrow streets on the north bank. Work began in 1833 to the designs of the two Surveyors of Houses to the Crown Estate in London, Thomas Chawner and Henry Rhodes. The street was not a conspicuous success, either aesthetically or practically. The architects lacked the influential backing Nash had enjoyed, and were forced to keep within absurdly stringent cost limits. The street was therefore narrower than Nash's streets ([17]). Worse still, a failure to reach agreement with the Mercer s' Company, who owned most of the property to the north of Bow Street, meant that it stopped short at Long Acre and so failed to reach Bloomsbury ([18]).

The attenuated Wellington Street was largely complete by 1835. By this time the Whigs were coming under increasing pressure to take the initiative in metropolitan improvements. The architect Sydney Smirke pointed out in a pamphlet that London, with all its wealth, was lagging behind other European capitals in

both architecture and street planning, and offered some sensible proposals for improvements ([19]). More important, though, the public was becoming aware of the threats to public health and public order posed by the worsening conditions in slums. It was this factor which, more than any other, forced the government to take the question seriously.

19th-century reforms were usually brought about by a combination of outside pressure and the urging of highly motivated M.P.s and civil servants. The public health issue was no exception ([20]). Conditions in the most crowded parts of central London, outside the City and the West End, had always been atrocious. They were now getting worse. Typhus and consumption were rife, and cholera appeared in 1832, causing fears among the better-off that were later memorably recalled by Charles Dickens in Bleak House. The overall death-rate was rising during the 1830s, and distress reached a peak in 1838-42, the years of the Chartist troubles ([21]).

Epidemic disease not only created a generalised fear of premature and unpleasant death; it also forced large numbers of people to seek poor relief. The fourth and fifth reports of the commissioners appointed to administer the new Poor Law of 1834 both contained lengthy statements from Southwood Smith, physician to the London Fever Hospital, expressing the view that unprecedented measures were needed to cope with the problem of poverty. The most important requirements were

proper sewers, effective waste disposal, and "ventilation". It was widely believed that many epidemic diseases were caused by "exhalation" or "miasmas" whose deadly effect were exacerbated by stagnant air. The opening up of wide streets through overcrowded neighbourhoods would, in Smith's view, introduce fresh air and blow away the miasmas. They would also allow the building of an "infrastructure" of main sewers. Future slums could be prevented by tightening up the London Building Acts, inserting provisions relating the width of streets and the distance between houses, and providing for waste removal. The cost of implementing these recommendations, Smith believed, would be less than that of looking after the sick ([22]).

The other great concern was public order. Central London had never been free of crime, but the crime rate was generally agreed to be rising in the 1830s, and criminals were believed to enjoy a safe haven in the slums ([23]). With political passions running high, the maintenance of public order was a major preoccupation. The idea of reducing crime by levelling the slum areas and opening up the "courts" to the newly-founded Metropolitan Police was therefore an attractive one ([24]).

The first indication that the government was prepared to take a comprehensive view of London street improvements came in 1836 with the appointment of a Commons Select Committee, containing several London

M.P.s. It looked at 14 plans and concluded that £1,200,000 would be needed to carry them out ([25]). Another Select Committee was appointed in 1838. Its members included Sir Robert Peel, Sir Matthew Wood - who had steered through the City's improvement schemes - and Pennethorne's patron, J. C. Herries, who wrote most of the report ([26]).

Among the schemes examined by the 1836 committee was one by Pennethorne for a completely new east-west street linking the City and West End- a London version of the Rue de Rivoli or Unter den Linden ([27]). Pennethorne had been working on this idea since at least 1834. The street was intended to relieve the two existing overcrowded routes, one following the Strand and Fleet Street, and the other Oxford Street and Holborn. It was to start at Piccadilly Circus and pass along the north side of Leicester Square and through Long Acre to the south side of Lincolns Inn Fields, levelling on its way "... streets and houses of the lowest description, quite as bad as the courts near the Strand, the removal of which was one great inducement to undertake the improvements in the neighbourhood" (Plate 20). It would then cut through the middle of Lincolns Inn, which Pennethorne proposed to remodel as "one Gothic edifice", before crossing the Fleet valley by a viaduct, joining a widened Newgate Street by St. Sepulchre's church and ending in a new square with a Wellington Monument close to St. Paul's ([28]). The idea of a new east-west street

was basic to all of Pennethorne's plans for street improvements, and remained with him for the rest of his life.

Pennethorne's scheme gave an impressive indication of his potential as a town planner, but for all its qualities the 1838 Select Committee made it clear in its Report that the era of Nash had passed. Any new streets were to be useful rather than splendid; "embellishment" was to be of a "subordinate importance". They should be financed out of local and not national taxation and carried out under the direction of the Commissioners of Woods and Forests, thus ensuring strict Treasury control ([29]).

The Committee's report was followed by legislation (1 & 2 Vict. c.100) which earmarked a paltry £200,000 from the proceeds of the London coal duty. In February 1839 Sir Matthew Wood, backed by Peel, secured the re-appointment of the Select Committee to make final recommendations ([30]). They were that work should start immediately on the four most urgently needed streets: a link between Piccadilly Circus and Long Acre (the eastern part of which was called Cranbourne Street after one of the estates of the marquesses of Salisbury, who owned most of the property); the deferred northern extension of Wellington Street and Bow Street to Bloomsbury (Endell Street); a new street linking Oxford Street and Holborn (New Oxford Street); and a street from Whitechapel to Spitalfields (Commercial Street). These, it was hoped,

would prove the first part of a more comprehensive programme ([31]).

Three of the streets - New Oxford Street, Endell Street and Cranbourne Street - were to cut through the district between the West End and the City which Nash had designated as most in need of new streets (Plate 21a). This area had first begun to be built up in the late 16th century, as London started spreading westwards. Although it contained some of the first great planned developments - notably Covent Garden - it had lost its socially exclusive character. Some of the land belonged to aristocratic owners, but they had been powerless to prevent the drift of fashion to the west, and the area now housed a largely artisan population, interspersed with pockets of great poverty, including London's worst slums.

Writers and artists had long dwelt with particular fascination on the area known as the "Rookery" or the "Holy Land", lying in the parish of St. Giles in the Fields, just to the south of the Bedford estate in Bloomsbury (Plate 21b). For well over a century this district had exhibited the symptoms of overcrowding, disease, under-employment and crime which have always characterised inner-city slums ([32]). Hogarth made it the setting for his "Gin Lane", and it was a notorious breeding-ground for cholera in 1832. None of the houses had drains, none of the streets had sewers. The houses, many of them timber-framed and in poor repair, were

subdivided and sublet. In 1841, Church Lane had an average of 24 people per house, many of them Irish. Some houses had 15 people to a room, and some families kept pigs ([33]). Behind the main streets there were "courts", which housed a colourful and anarchic sub-culture. On one occasion Pennethorne was shocked to be "... told on good authority by a man whose property overlooks the courts, that frequently, on a Sunday morning, he sees a dozen women, perfectly naked, without the least dress at all, dancing to a fiddler" ([34]). Since the many owners had neither the power nor, so long as the rents flowed in, the inclination to improve the quality of the area, total demolition seemed to most observers the only way of removing a malady which threatened the health of London as a whole ([35]).

Under the new scheme, New Oxford Street would cut through the middle of the Rookery, bypassing Broad Street St. Giles (now St. Giles High Street), one of the worst bottlenecks in London, and sending traffic in a more direct route to Holborn, the City and the north-eastern suburbs. It would be bisected by Endell Street - the northern part of the route proposed by Chawner and Rhodes from Waterloo Bridge to Bloomsbury - which would lead north to Bloomsbury Street and Gower Street (Plate 22) ([36]). Cranbourne Street, meanwhile, would take traffic from Piccadilly towards Covent Garden and Bloomsbury, an idea mooted by Gwynn in 1766, and later reiterated by Nash ([37]). All these schemes figured in

Pennethorne's grand design of 1838, and, as he repeatedly pointed out later, they only made sense in that wider context.

The fourth route was to pass through a district no less poor, overcrowded and unhealthy than St. Giles. Like St. Giles, Whitechapel and Spitalfields grew as a result of the huge expansion of London in the 16th and 17th centuries. Spitalfields Market was established in 1682, and the coming of the docks further south in the early 19th century led to a massive increase in population (Plate 23a). Conditions were worsened by the collapse of the once flourishing silk industry of Spitalfields and Bethnal Green ([38]). Although Spitalfields contained some of the finest early-18th-century houses in London, as well as Hawksmoor's overpoweringly impressive Christ Church, the courts and alleys leading off Essex Street and Wentworth Street, north of the Whitechapel Road, were "without any drainage and extremely filthy and close" ([39]). The area was notorious for crime, harbouring "... an exceedingly immoral population; women of the lowest character, receivers of stolen goods, thieves and the most atrocious offenders" ([40]). Stephen Lushington, M.P. for Tower Hamlets, thought that a new street was "of the last moment to the happiness, comfort, health, and morality of that district ... The expense of these improvements would be more than repaid by the moral advantage the public would derive from them" ([41]).

Pennethorne's aim was to link the proposed Eastern Counties Railway terminus in Shoreditch with the London Docks, so as to keep heavy carts - the equivalent of today's lorries - out of the City ([42]). The southern part of the new route would be formed by widening existing streets (Dock Street, Leman Street, and Red Lion Street), while to the north of Whitechapel High Street a completely new thoroughfare (Commercial Street) would be built over Essex Street up to Spitalfields Market and the front of Christ Church (Plate 23b). It would subsequently be extended north to Shoreditch, and would then serve as the first part of a projected northern ring road leading eventually to the City Road, the "New Road" - London's first by-pass - and the main railway stations. This became the second part of Pennethorne's strategy for improving London's streets.

The four new streets were placed in the hands of Chawner and Pennethorne, Henry Rhodes having indicated that he wanted to retire from active practice. Pennethorne's appointment - perhaps engineered by Herries - was a new one. He was to act jointly with Chawner "in all matters connected with [his] profession regarding the Improvements now contemplated in the Metropolis or any other improvements arising out of it and for which provision may be made by Parliament" ([43]). In 1840 he also took over from Rhodes as joint surveyor, with Chawner, for the Crown Estate. His private practice now dwindled to virtually nothing.

Chawner had already prepared preliminary plans for New Oxford Street and Cranbourne Street, and the two men submitted their final plans and estimates for all four streets at the end of 1839 ([44]). The plans are jointly signed, and presumably incorporate both mens' ideas, while drawing on those of Gwynn and Nash before them ([45]). But it was Pennethorne who answered most of the questions put by the Commons Select Committee, and it seems that he was responsible for the more imaginative aspects of the schemes.

The architects estimated that the streets would cost just under £1 million to build, five times the sum set aside from the coal tax in 1838 ([46]). Financial difficulties arose immediately. The Commissioners of Woods and Forests managed to raise only £100,000 through loans, and the Government refused to raid the Consolidated Fund ([47]). There was no means of funding the streets out of local rates, and no consideration was given to raising loans directly from the public, as Napoleon III and Haussmann were later to do in Paris ([48]). The difficulty was that new streets did not bring in any immediate income. It took some time, especially in poor areas, for ground rents to increase to a point where a return could be made on the investment. The English middle classes, unlike their French counterparts, did not relish the idea of living in flats above or below poorer people ([49]). They preferred the expanding suburbs. Rents were therefore bound to be low and profits small.

Nash had astutely planned Regent Street so that it demarcated the boundary between Mayfair and Soho; there was therefore the prospect of attracting fashionable shops to serve the inhabitants of the West End. This possibility did not exist farther east.

Ruthless cuts were inevitable as soon as the lack of funds became apparent. The Select Committee was reconvened, and Chawner's and Pennethorne's plans submitted for revision to James White Higgins, a well-known surveyor, and Richard Lambert Jones, one of the men responsible for carrying out the City of London's improvement schemes. From the point of view both of aesthetics and traffic management this decision was disastrous. The primary loyalty of both Higgins and Jones was to the City Corporation, which was eager to secure as much as possible of the coal tax revenue for its own purposes ([50]). They believed that purchases of property should be kept to a minimum, as in Wellington Street. The new streets, they said, need not be wider than 50 ft., the width of King William Street, rather than the 65 ft. envisaged by Chawner and Pennethorne for New Oxford Street (or the 100 ft. of Portland Place). Given the Government's determination to cut the costs, the architects could do little more than protest ineffectively. They had a series of meetings with Higgins and Jones, and in March 1840 submitted a new series of plans incorporating most of their proposed amendments ([51]).

Under the new plans the estimated gross outlay was halved. The width of the streets was cut - though less drastically than Higgins and Jones had proposed - and an impressive-looking square at the junction of New Oxford Street and Endell Street omitted. Purchases of property were to be greatly reduced, and about half the St. Giles Rookery left standing (Plate 24a) ([52]). Savings were made in Endell Street by confining purchases of property to the eastern side of the street, and by forming an irregular junction with Bow Street, so that traffic coming north had to turn first into Long Acre. The opportunity of forming what could have been an eastern Regent Street from Waterloo Bridge to Bloomsbury and Euston Square was thus finally lost (Plate 24b) ([53]). Even worse, the reduction in the width of Cranbourne Street effectively destroyed Pennethorne's idea of treating the route as the first instalment of his new thoroughfare from the West End to the City (Plate 25) ([54]). Writers in the radical Westminster Review vainly pointed out that an extension of the coal tax for only two years beyond 1862 would have brought in enough money to carry out the original plans in full: "... We lose our temper with vexation when we see how by the crooked policy which has been pursued, public convenience, architectural effect, and the improvement to a very great extent of the pecuniary value of property along the whole line, have been sacrificed" ([55]).

The Select Committee now recommended building

three out of the four new Streets in their reduced form, using funds from the coal duties, which were to be extended another four years to 1862 ([56]). An Act for Commercial Street, Endell Street and New Oxford Street was passed in the summer of 1840 (3 & 4 Vict. c.87) followed by another for Cranbourne Street a year later (4 & 5 Vict. c.40.).

Even in their reduced form the streets were plagued by financial difficulties. Under the Acts of Parliament, the Commissioners of Woods and Forests were given powers to raise loans in the financial markets, using the coal duties as a security. There was certainly no lack of capital in England; according to the young W. E. Gladstone, it abounded "to an almost unprecendented degree" ([57]). But with railway companies and other potentially more lucrative enterprises competing for funds, the Commissioners found it very difficult to raise the money. A circular sent to the main insurance companies in 1840 yielded only one response, and it was not until further legislation in 1841, enabling the Commissioners to use the Crown's Land Revenues as security, that enough money could be raised to enable work to start on acquiring the property ([58]).

Pennethorne and Chawner began their negotiations in the autumn of 1841 ([59]). They involved two years of minutely detailed haggling. Several awards were disputed, and when the cases went to arbitration, the juries often gave higher awards to freeholders and

lessees than the government had expected ([60]). Especially high sums were extracted for "goodwills" of shopkeepers who feared losing their trade. These high awards made it impossible to keep within the original estimates. By the spring of 1843 all the £500,000 borrowed in 1841 had been used up before work had even begun on the construction of the streets themselves ([61]). The Tories were now in power, and the Treasury authorised the Commissioners of Woods and Forests to borrow another £250,000 ([62]). A year later, an Act was passed (7 Vict. c.1.) giving the Commissioners power to raise £250,000 from the Bank of England by mortgaging Crown property ([63]). The final expenditure of £919,271, was well in excess of the estimates - though less than that of Regent Street or the West Strand improvement - and in 1853 Gladstone, by now Chancellor of the Exchequor, allowed the remaining costs to be settled out of the Consolidated Fund ([64]).

Demolitions began early in 1843, and the streets were constructed during 1844 ([65]). Cranbourne Street and Endell Street were ready for traffic by the summer of 1844, but Commercial Street and New Oxford Street were not fully opened until 1845 ([66]). When the streets were ready, the building sites were advertised on building leases. The negotiations with the builders were handled by Pennethorne alone, Chawner falling ill in 1844 and finally retiring at the end of 1845. When he retired, Pennethorne agreed to relinquish what little

remained of his private practice in return for pension rights ([67]). His commitment to the Government was now complete.

The architectural development of the new streets was carried out differently from Regent Street, where the houses and shops remained Crown property after they were built. Now, the aim was to let the sites on 80-year building leases, but to sell the ground rents after they had improved in value ([68]). Unlike Nash, Pennethorne could not act as builder himself. His main tasks were to fix the ground rents, set out the terms of the leases, and impose restrictive clauses which would ensure that the right type of tenant was attracted. He also had to vet the architectural elevations, and ensure that the buildings were properly constructed. Beyond that, he had little power to control the precise form they took. With one exception, he did not design any of the buildings himself. His main concerns were to ensure a modicum of architectural decency, and the greatest possible profit consistent with the overall aim of improving the amenities of the areas whtough which the streets passed.

In order to secure high rents, he imposed few restrictions as to choice of style. In Cranbourne Street, where the 13 sites were advertised in mid 1844, he did not insist on "symmetrical Architectural Elevations for any particular number of Houses" ([69]). In the more important New Oxford Street, where 33 sites were

advertised in March 1845, he told prospective purchasers that the frontages on each lot were to be "of one uniform Elevation; but no objection will be made to two or more of the adjoining lots being of a uniform Elevation; nor will any objection be made to Buildings of the Architecture known as "Elizabethan" (70) - a new departure in London's street architecture. Endell Street and Commercial Street were never expected to attract fashionable tenants; the difficulty there was to attract anyone to take the sites at all.

The sites in the two grander streets were all taken by speculative builders. They included some large concerns, like that of William Herbert, the builder employed by Nash in the West Strand, and Samuel Archbutt, who had worked extensively on the Grosvenor estate (71). As in Regent Street, most of the sites were used for shops, with "chambers" or storage spaces for goods on the floors above. Some of the builders went to outside architects for their designs; others, like Herbert, prepared the elevations themselves. All the elevations were submitted both to Pennethorne and to Peel's First Commissioner of Woods and Forests, Lord Lincoln. Both insisted on alterations from time to time, and in their finished form the streets can be said to embody Pennethorne's own taste in an indirect way (72).

All of the streets were developed piecemeal (73). Cranbourne Street was built up quite quickly, but New Oxford Street still had a "very ragged and broken

appearance" in 1847. Pennethorne managed to persuade the Commissioners to grant the builders a reduction in rents, and by 1850 most of the gaps there had been filled up ([74]). Endell Street was not built up until the end of the 1850s, and Commercial Street even later.

Architecturally, the most impressive of the new streets were Cranbourne Street and New Oxford Street (Plates 26, 27). Both saw a development and enrichment of the brick and stucco manner associated with Nash and the Regency, and both were marked by great stylistic variety. Italian Renaissance motifs abounded: highly moulded architraves, bold cornices and, in some cases, round-arched windows of Venetian derivation.

The tone was set by a block (since demolished) designed in 1844 by Charles Mayhew in the extension of Coventry Street, which led from Piccadilly Circus to Leicester Square and Cranbourne Street (Plate 28a). The effect, in Pennethorne's view, was "rich and imposing and suited to the situation though not classical", and in a report he drew attention to the incongruity of massive facades appearing to rest on plate-glass windows. In another surviving block on the south side of Cranbourne street, a plain and simple design was supplied by the builder, William Dent, but was criticised by both Lord Lincoln and Pennethorne, who insisted on the provision of a heavy cornice and enriched architraves in the wings (Plate 28b) - an interesting indication of his own architectural tastes ([75]).

In its heyday New Oxford Street boasted an even more impressive array of commercial architecture. Most of the facades were highly enriched, but one surviving block at the junction with Coptic Street (Plate 29a) is an impressive essay in classical abstraction in which Pennethorne's own hand is almost certainly visible ([76]). The new street cut diagonally across several existing thoroughfares, and at the junctions the builders provided a succession of architectural setpieces, like the block articulated by Corinthian columns (Plate 30) which occupied the acute angle at the junction with Hart Street (now Bloomsbury Way), close to Hawksmoor's St. George's, Bloomsbury.

The most ambitious speculation was on a site further west, close to the present Tottenham Court Road Station (Plate 31). Here the lessee, John Merrick, and his architect, Thomas Marsh Nelson, built an arcade or "bazaar" modelled on the Lowther Arcade in the Strand ([77]). The street facade, designed in 1848, was intended to satisfy the shopkeepers' need for good lighting while at the same time avoiding the top-heavy effect which Pennethorne had abhorred in earlier shop buildings. The ground floor was an arcade filled with plate-glass windows, and the large first-floor windows were placed in aedicules over the tops of the ground-floor windows, with smaller windows over the spandrels - an almost Mannerist effect ([78]). Pennethorne thought that, with middle-class Bloomsbury to the north, the noxious Rookery largely

swept away and the neighbourhood gradually improving, the development might become as successful as the Burlington Arcade. But New Oxford Street was not Piccadilly, and in 1854 Merrick went bankrupt ([79]). The arcade, like many other buildings in both New Oxford Street and Cranbourne Street, was demolished between the Wars ([80]).

One of the most interesting features of the New Oxford Street development was Pennethorne's attempt to promote the use of the Jacobean style. He even designed a block of neo-Jacobean shops himself on a tongue of land stretching south along Bloomsbury Street to Broad Street and Endell Street, near the present Shaftesbury Theatre. Its neighbours were a Gothic French Protestant chapel, John Gibson's neo-Romanesque Bloomsbury Central Baptist Chapel of 1845-8, and the remodelled classical Bedford Chapel - a visual demonstration of the religious diversity of Victorian London, which also indicated a growing eclecticism in street architecture ([81]).

The red brick walls and profuse detailing of Pennethorne's block (Plate 32) represented a far-sighted break with the type of street architecture which he had inherited from Nash. Though widely used in early Victorian country houses, neo-Jacobean architecture had not yet appeared in the streets of London, and, when first built in 1845, the new block on its corner site must have made a striking appearance. By choosing the Jacobean style Pennethorne showed himself aware of the growing reaction against the alleged dullness and poor

execution of the street architecture of the Nash era ([82]), and anticipated the "Queen Anne" revolution of the 1870s. But the block was not a commercial success, and it was demolished when Shaftesbury Avenue was built across the site in 1885 ([83]). The Jacobean style was only used in one other site, in the eastern part of New Oxford Street, where James Stansby designed a block (Plate 29b) which was praised for being "sober and quiet in composition" ([84]).

The new streets were well received by commentators, both at home and abroad. Aesthetically, New Oxford Street was thought by more than one writer to be more successful than Regent Street. According to one account, "the whole district now seems civilised - which it hardly was before - and has put on not only a cheerful but an unusually attractive aspect" ([85]). But the streets never achieved the vitality and profitability of Regent Street. In March 1850 Pennethorne admitted that in Cranbourne Street "... to a certain extent the Speculation has failed; perhaps from the depression of the times - or that the Shops are too good for the neighbourhood - or that they are out of the line of Retail traffic, or from these and other causes unitedly" ([86]). It was even more difficult to attract fashionable shoppers to New Oxford Street, which soon developed a solidly respectable middle-class character best exemplified perhaps by Mudie's famous circulating library at the junction with Museum Street ([87]).

Shopkeepers kept away completely from the eastern side of the sinuous Endell Street - the only part on which there any building sites. Here the ground was eventually occupied by institutions catering for the working-class inhabitants of the surviving remnants of the Rookery: a Gothic church by Benjamin Ferrey, a lying-in hospital, a public baths and a workhouse ([88]). A large Gothic stained-glass factory was built in 1859, followed in 1860 by E. M. Barry's St. Giles National Schools, an even more impressive example of the contemporary vogue for secular Gothic (Plate 33).

For a long time Commercial Street and its southern extension to the docks presented an even more forlorn appearance. By 1849 only one site had been leased. Most of the plots were finally disposed of at low rents, but the difficulty of attracting tenants made it impossible and perhaps unnecessary for Pennethorne to exert much influence over the architectural elevations ([89]). His concern was chiefly to impose some sort of "social control" by encouraging the building of churches and schools (Plate 34) and keeping out "bad influences" like theatres ([90]). A monument to this endeavour is a now-dilapidated Italianate school of 1857-8 next to a German Lutheran church at the corner of Leman Street and Alie Street (Plate 35b). Like Endell Street, most of Commercial Street itself was built up in the 1850s, and the remaining sites were sold off in the 1860s. Architecturally, its main interest lies in the presence

of some impressive Italianate warehouses of the type which were being built in large numbers around the periphery of the City at the time (Plate 35a).

Street improvement schemes must be judged not only for their commercial and aesthetic success, but also for their impact on traffic patterns. Here the fragmentary nature of the improvements proved a real drawback. Endell Street was never more than a backwater. The tortuous line Pennethorne had been forced to adopt reduced its value as a traffic improvement, and as early as 1853 calls were being made for a relief route along the line of the present Kingsway ([91]). Cranbourne Street never realised its full potential either, and because Pennethorne's idea of a new east-west street never materialised it remained a rather unimportant street in a not very smart part of London. New Oxford Street, on the other hand, became a major route as soon as it was opened, and its value was later increased when the Metropolitan Board of Works extended Hart Street through Theobalds Road to Clerkenwell. Similarly, once it was extended north, Commercial Street became, and remained, a major through route, as anyone contemplating the endless procession of heavy lorries today can testify.

One of the main aims of the improvements was to tackle the problem of what we would now call inner-city poverty. Here success was only partial, as several recent historians have pointed out. It is true that the construction of sewers was an essential precondition for

future improvements. But in the short term nothing was done for the poor who were forced to see their ramshackle dwellings razed to the ground. The owners of the remaining fragments of the St. Giles Rookery did nothing to improve their property, and in Church Lane, south of New Oxford Street, overcrowding increased as the poor were evicted from the houses in the line of the new street ([92]). Revelations about the increased overcrowding soon convinced philanthropists that there was little point in building new streets through the slums without making some attempt to provide improved housing nearby, designed to attract a better class of inhabitant. A writer in Punch gauged the changing mood when he asked in 1845, "where are [the poor] all to go? So as they are got rid of somehow, this is a question which gives little trouble to those who are bent on "improving" a neighbourhood" ([93]). In fact one of the first blocks of improved artisan housing in London was built by the Society for Improving the Conditions of the Industrious Classes in Streatham Street, just to the north of New Oxford Street, in 1849-50. In this way, Pennethorne's streets played an important part in the growth of social awareness.

Pennethorne's new streets only scratched the surface of London's traffic problems. Even before work began, there was pressure to extend the improvements to other parts of London. A Metropolitan Improvement

Society was formed in January 1842, the year of Edwin Chadwick's Report on the Sanitary Condition of the Labouring Population. Later in the year Lord Robert Grosvenor, M.P. for Chester, called for "... a well-considered and comprehensive plan of improvement, which should embrace the health, the convenience and the decoration of the metropolis" (94). The Prime Minister, Sir Robert Peel, thought that "there could not be a better application of public money than in these great public improvements", but rather than appointing another Select Committee, which might be swayed by local M.P.s, he decided to refer the question to a Royal Commission (95).

The Commission was made up of some of the M.P.s who had served on earlier Select Committees, together with the three Commissioners of Woods and Forests. There were also two architects, Sir Robert Smirke and Charles Barry. Pennethorne was not a member, but acted as "professional advisor", or architectural consultant, and was called in to judge upon the practicability of the schemes discussed (96). The members were confronted with a series of demands which no body of men could possibly have satisfied: the abolition of tolls on bridges, the provision of public parks, better sewers and public urinals, the control of smoke, the building of a new Law Courts, and the regulation of railways, as well as several street improvement schemes (97). They could pronounce on these plans, but they did not take the

initative themselves, and in the absence of local funds they were dependant on Government to carry out them out.

The first report was brought out in 1844 and was followed by six more in the next seven years. The recommendations included several major schemes which were eventually executed, often after a considerable lapse of time: a Thames Embankment from Westminster to Blackfriars ([98]); another embankment further west from Vauxhall Bridge to Battersea Bridge (the present Chelsea Embankment) ([99]); the building of Chelsea Bridge and the making of Battersea Park ([100]); the construction of Victoria Street ([101]); the extension of Commercial Street north to Shoreditch; the building of a new Public Record Office on the Rolls Estate to the east of Chancery Lane, together with associated street improvements ([102]); and the building of a link from Cranbourne Street to Covent Garden (Garrick Street) ([103]).

Pennethorne was consulted about most of these schemes, and commissioned to design and execute many of them. In some cases he was called in to modify and refine the plans of others. As the advisor to the Royal Commission he was also asked to formulate plans for further improvements, and was consulted by other Royal Commissioners and Select Committees. Taken together the plans formulated during the 1840s, following those recommended by the earlier Select Committees, represent blueprints for remodelling London nearly as comprehensively as Haussmann was later to remodel Paris.

The results were fragmentary and disappointing, at least in the short term. Victoria Street, first formulated by Improvement Commissioners in the 1830s, was realigned at Pennethorne's suggestion through a particularly noxious slum (Plate 36), and finally completed with financial help from the Government in 1851 ([104]). But the much shorter Garrick Street, first planned by the parish surveyor of St. Pauls Covent Garden, was delayed by lack of funds and not finally completed until 1859-61 (Plate 37a) to a plan which embodied revisions suggested by Pennethorne ([105]). Construction of the Chelsea Embankment dragged on through the 1850s and 60s, Pennethorne's contribution being limited to the building of a link road (Chelsea Bridge Road) from Chelsea Bridge to Sloane Street in 1857-8 (Plate 37b) ([106]). The most important scheme of all, the Victoria Embankment, was postponed until the 1860s, by which time Pennethorne had relinquished many of his responsibilities for street improvements.

The most important project entrusted to Pennethorne was the northern extension of Commercial Street. His first scheme for an extension beyond Christ Church Spitalfields to Shoreditch was drawn up in 1839, and in 1844 a local committee pointed out that the imminent opening of the southern part of the street would soon lead to intolerable congestion in the area beyond. Pennethorne's intention was to take the street through Shoreditch to Old Street, with a large rond-point twice

the size of Oxford Circus by the Eastern Counties Railway's recently-completed Italianate terminus. It would then form "part of a great thoroughfare all round London, one of the main arteries" ([107]). An Act was passed in July 1846 authorising the Commissioners of Woods and Forests to build the street from Spitalfields to Shoreditch to Pennethorne's plans (Plate 38), but the usual difficulties in raising funds delayed progress, and it was not until the Bank of England made a loan in 1848 that purchases began ([108]). Work was finally completed in 1858 at double the estimated cost. Architecturally, the Commercial Street extension continued the parade of warehouses begun earlier further south (Plate 39), relieved only by the gloomy presence of London's first Peabody Buildings ([109]). The extension to Old Street (now called Great Eastern Street) was only built after Pennethorne's death, to a different plan.

None of these projects gave significant scope for the display of Pennethorne's abilities as an architect and planner. In other plans commissioned by the Royal Commission on Metropolitan Improvements, however, he gave a tantalising vision of what London might have become. The first of these schemes was for new streets south of the Thames. The 1840 Select Committee on Metropolitan Improvements had already recommended government help for the building of a new street through "the Mint" in Southwark, one of London's worst slums, but no funds were forthcoming, and a local

improvement Act passed in 1842 remained ineffective through lack of money ([110]). Southwark suffered from the same problems as many areas north of the river. Factories and slum houses stood side by side. There were also prisons, like the Marshelsea, immortalised in Dickens's Little Dorrit. The adjacent parishes of Bermondsey and Lambeth were equally poverty-stricken. The building of new bridges over the Thames made it easier to travel into central London from the growing southern suburbs, but despite the fact that the shortest route from Westminster to London Bridge lay along the south bank, there was no main thoroughfare to take the traffic (Plate 40a).

Pennethorne's solution, devised in 1846, was both bold and imaginative. It depended on the building of two new road bridges to replace the 18th-century Westminster Bridge, which was showing signs of strain. One was to be on the site of the present Lambeth Bridge, and the other slightly to the south of Brunel's elegant Hungerford foot-bridge. New streets would lead from Trafalgar Square and Whitehall to the new "Charing Cross Bridge", anticipating the present Northumberland Avenue and Horse Guards Avenue (but preserving the Jacobean Northumberland House). An embankment would be built on both sides of the river, flanked by blocks of new terraced houses set among gardens, with a public walk by the river - a fitting proposal from the disciple of John Nash. Two new streets would take the traffic on the

south bank, one heading south towards Kenington and Camberwell, and the other following a straight line to Southwark and Bermondsey (Plate 40b); traffic going south from Westminster would use the new Lambeth Bridge ([111]).

The plans were discussed by a Commons Select Committee in 1847 after one of the piers of Westminster Bridge collapsed, but they were rejected in favour of building a new bridge on the site of the old one ([112]). Nothing more was done until 1853, when the Southwark Improvement Commissioners proposed building a street themselves and funding it partly out of the local rates. They asked for a government grant and their plan was submitted to Pennethorne who cast doubt on their ability to carry it out. He produced a revised plan of his own, under which Hungerford Bridge would be widened to take road traffic, and the new street carried in a straight line to Southwark. But funds were not available to carry the project out ([113]), and the graceful suspension bridge was eventually replaced by the present Charing Cross railway bridge - one of the most insensitive Victorian additions to the capital.

The failure to build either a Thames Embankment or a relief road south of the Thames meant that traffic jams in the existing routes between the City and the West End got progressively worse. Pennethorne's long-cherished plan for a major thoroughfare leading from the West End to the City was designed to alleviate this congestion. It was revived in a slightly modified form

in 1847 in connection with the Government's proposals for a new Public Record Office, of which he was designated architect. He now proposed a more southerly route avoiding Lincolns Inn and passing along the north flank of the new Record Office (Plate 20). Eastbound traffic from Holborn and Fleet Street was to be channelled into the new street just to the west of a proposed "Holborn Viaduct", and the street was to end on the northern side of St. Paul's Churchyard ([114]). In a further refinement, a street was to be built from Waterloo Bridge to Holborn, alongside Lincolns Inn Fields; if it had been built, it would have made the later Kingsway unnecessary.

These streets would have changed the fact of London, creating dramatic new urban vistas comparable perhaps to those in Regent Street. The revised plans received the blessing of the Royal Commission on Metropolitan Improvements, and compulsory purchase notices were issued for the part adjoining the Record Office. But successive governments were terrified by the potential cost, and refused to provide the funds. Today the northern front of the massive building can scarcely be seen - a sad comment on the parsimony of the times.

London's traffic problems were magnified by the coming of the first railways. By the mid 1840s no fewer than seven termini had opened, each of them generating increasing quantities of both passengers and freight through the already crowded streets of the City and West End ([115]). With the "Railway Mania" spreading, a new

Royal Commission was appointed in 1846 to investigate projects for establishing new termini in central London, and for concentrating the existing ones. The witnesses included Pennethorne, who had long believed that the coming of the railways presented an opportunity for finally rationalising the streets of central London. He thought that railways should be kept out of the central area, and future needs satisfied by a new central terminus shared by several railway companies near Clerkenwell Green or, ideally, at Kings Cross. A second terminus for the southern lines could be built alongside his proposed new road on the South Bank. The new termini would be served by an improved road network chanelling the traffic away from the congested central streets ([116]). The Commissioners agreed that new termini should only be built in conjunction with street improvements, which should be part of "one well-considered scheme".

Pennethorne wanted the railway companies to help finance streets improvements, but nothing came of his proposal. With Government financial assistance already used up on the existing Metropolitan Improvements, and no new source in sight, it was proving increasingly difficult to carry out even the relatively modest plans which had long been regarded as essential. Meanwhile private funds flowed into the coffers of the railway companies, which, in the laissez-faire climate of the times, pressed ahead with new stations at Waterloo (replacing Nine Elms) in 1848 and Kings Cross in 1852.

The central termini were never built, and before long the railways, eager to exploit the growing suburban market, were pressing into the heart of the City and Westminster.

Street congestion continued to mount during the 1850s. Pennethorne continued to argue vainly in favour of a comprehensive scheme of street improvements financed out of an extended coal tax, together with Government contributions from the Consolidated Fund. As he told a Select Committee on Metropolitan Communications in 1855, the improvement of London was more than a matter of merely local concern: "... I look upon the Metropolis as belonging to the Empire altogether; I think the empire ought to a certain extent to pay for beautifying the metropolis ... it is visited perhaps by a million of people out of the country and foreigners every year; and every man in the empire is interested in the appearance generally, and the open space and public buildings of the Metropolis". The Committee thought that the problem could be tackled by removing the remaining tolls from the bridges, building an underground railway and a Thames Embankment, and building some new streets including Pennethorne's planned route along the South bank ([117]). Some of these aims were indeed achieved, but by then Pennethorne's role was only peripheral.

It had already become clear by the early 1850s that the mechanism for carrying out London street improvements was inadequate, and that central government had failed in the role as planning agency for central

London. In 1848 Lord Morpeth, First Commissioner of Woods and Forests in Russell's government told M.P.s that further improvements could not be contemplated until new funds were found ([118]), and three years later the Royal Commission on Metropolitan Improvements issued its last report The transference of metropolitan improvements from the Woods and Forests to a revived Office of Works in 1851 did nothing to solve the financial impasse. With debt charges amounting to nearly half of government expenditure, no mid-Victorian government was prepared to borrow yet more money to finance street improvements. Provincial M.P.s did not relish the idea of taxing their constituents to pay for the embellishment of the Great Wen. The obvious alternatives were to impose or extend the coal duty - Pennethorne's own preference - or to levy local rates. The latter was a more attractive solution to the governments of the 1850s, since it satisfied the principle of "local self-government".

The difficulty before 1855 was the absence of a single representative local authority for the whole of London with the energy and resources to carry the improvements through. The formation of the Metropolitan Board of Works solved this difficulty. It was the brainchild of Sir Benjamin Hall, a former Radical who had championed the rights of local vestries against the allegedly overweening pretensions of centralisers like Sir Edwin Chadwick. In 1855 Hall succeeded in persuading Lord Aberdeen's government, through its Home Secretary,

Lord Palmerston, to remodel Chadwick's General Board of Health. Hall became President of the Board, and in 1855 he brought in legislation to replace the London Commission of Sewers - another Chadwick creation - with a new elected body, the Metropolitan Board of Works. Its tasks were to manage the sewers, oversee the London Building Acts - revised in 1844 but still in need of improvement ([119]) - and to relieve the Office of Works of its responsibility for planning and building new streets. It was to cover almost all the built-up area outside the City, and to have the power of levying local rates, together with limited borrowing powers ([120]). With the creation of the Board, London now had a unified agency capable of carrying out the reforms that Pennethorne and others had long urged.

The government now relinquished its responsibilty for London street improvements, except for those already in progress - which continued under Pennethorne's superintendence - and those which involved the royal parks ([121]). The Metropolitan Board of Works inherited two schemes projected by Pennethorne but not yet begun: Garrick Street, and the proposed new street on the south bank from Waterloo to Southwark. Both were carried out, but Pennethorne's plan for the south bank was rejected despite backing from the Royal Institute of British Architects, on the grounds of expense, and replaced by a shorter and less impressive curved street - the present Southwark Street ([122]). Other projects

followed, but the greatest achievement of the Metropolitan Board of Works was the provision of a modernised system of sewerage, and the building of the Thames Embankment. The latter affected Pennethorne in his capacity as architect to the Crown Estate, but the other activities lie beyond the scope of this survey ([123]).

With the advent of the Metropolitan Board of Works, London street improvement entered an even more utilitarian phase (the Embankment excepted). Streets like Shaftesbury Avenue, Charing Cross Road and Rosebery Avenue illustrate the loss of even the relatively rudimentary aesthetic control Pennethorne had exercised. The contrast with the grands boulevards in Paris is pitiful. Only in the City, with the construction of the Holborn Viaduct and the great markets, was the old spirit kept alive. The more expansive Edwardian era brought a temporary return to the grander vision of Nash and Pennethorne under the newly-founded London County Council; it is well illustrated by the building of Kingsway and Aldwych. Some of Pennethorne's other ideas, like that of a new road on the south bank and an "inner ring road" keeping traffic from the docks away from the City, have been gradually adopted, but they can hardly be said to add to the architectural joys of the capital. Generally speaking, the vexations which Pennethorne encountered in his efforts as a street planner have

continued to dog his successors.

Pennethorne, like others who have tried to rationalise London's chaotic street pattern, fell victim to an attitude of mind which set little store by urban magnificence. Since the 19th century Londoners and their rulers have cherished an arcadian, rural vision in which monumentality plays little part. The suburbs represent the true aspirations of the mid Victorians, not the city centre; as one witness reminded the 1846 Select Committee on Metropolitan Communications: "The passion for country residence is increasing to an extent that it is almost impossible for persons who do not mix with the poor to know. You cannot find a broken teapot in which to stuff, as soon as spring comes, some flower, or something to give them an idea of green fields and the country" ([124]). These attitudes did not change, and in 1904 Edwin Lutyens wrote: "Our new streets, oh the vapour of it all! Look at Paris, how well they lay out there, the courage, sense and big obvious simplicity of it all... Our L.C.C. [the successor of the Metropolitan Board of Works] is appalling compared with French authority. So there it rests, and will, until some one can awake the ignorant torpidity and guinea-pig waste of national energy. This saving of ha'pence and confusion of accounts, philanthropics and trade, does waste and mislead woefully. It is a long story, and is bred in the bone of the nation" ([125]).

From an aesthetic point of view it is difficult

not to sympathise with Lutyens, Pennethorne and others who have set their minds to the replanning of London. But it does not necessarily follow that a Haussmann-ised London would have been a more agreeable place to inhabit or visit than the city which emerged from the rebuilding of the 19th century. As Rasmussen pointed out in the 1930s, much of the attractiveness of London derives from its lack of oppressive monumentality. The London of today is in fact an embodiment of choices made by Londoners and their rulers over many generations, and it would be rash to say that, taken together, these choices were mistaken.

1. F. Sheppard, London 1808-1870: the Infernal Wen (1971), p.18; G. S. Jones, Outcast London, (Harmondsworth, 1976) pp.52-98.

2. T.C. Barker & R.M. Robbins, History of London Transport, i (1963), p.10.

3. See A. Pundt, Schinkel's Berlin (Cambridge, Mass, 1972), esp. pp.122-5; O. Hederer, Leo von Klenze (Munich, 1964) passim; H.R. Hitchcock, Architecture: Nineteenth and Twentieth Centuries (Harmondsworth, 1971), pp.53-4.

4. For Edinburgh, see A.J. Youngson, The Making of Classical Edinburgh (1966), passim;

5. S.E.Rasmussen, London: the Unique City (MIT Press ed,

1974), p.1.

6. ibid. pp.11-13; Rep. Sel. Cttee. on Metropolitan Communications, PP 1854-5 x[415] pp.6-7.

7. R.B. Pugh, The Crown Estate (1960), pp.16-21.

8. For the Office of Works before 1851 see Kings Works, vi, esp. pp.182-349. See also Rep.Sel.Cttee. on Land Revenues of the Crown, PP 1833 xiv. [677], pp.109, 189-191, 215.

9. Hansard xcvii 2 March 1848, 142-3. See, for example B.L.Add MS 44381 ff.177-9, 22 June 1854.

10. F. Crouzet, The Victorian Economy (1982) pp.71,110; D. Olsen, The Growth of Victorian London (1979), p.46; D. Olsen, The City as a Work of Art, (New Haven & London 1986), pp.21-2.

11. H. Roseveare, The Treasury: the Evolution of a British Institution (1969), p.145; M. Wright, Treasury Control of the Civil Service (Oxford, 1969), esp. pp.9-10, 20, 28-45; Mitchell, Abstract of British Historical Statistics (Cambridge, 1962), pp.396-7.

12. E. Hall, "Pennethorne and Public Improvements - a Retrospect", Mechanics Magazine, xxi (1871) p.272; W. Ashworth, The Genesis of Modern British Town Planning (1954), p.65.

13. Hitchcock, op.cit. pp.95-6.

14. Builder, 14 June 1845, p.286.

15. PP 1826, xiv, pp.11-12.

16. T. H. Rickman, "On Metropolitan Improvements" RIBA Trans 1859 pp. 71-2.

17. Survey of London xxxvi., pp.226-8; Rickman, loc.cit. p.72. Chawner had made one of the preliminary plans for the layout of Marylebone (Regent's) Park before being superseded by Nash.

18. Companion to the Almanac, 1831, p. 217; 1834, p.212.

19. Suggestions for the Architectural Improvement of the Western Part of London, pp. 5, 17-19, 22. Smirke's brother Robert had acted as architectural consultant to the City Corporation over the London Bridge Approaches.

20. S. E. Finer Life and Times of Edwin Chadwick (1952) pp.156-162, etc.

21. M.W. Flinn (ed.), Sanitary Report of 1842, pp.42, etc.

22. 4th Rep. Poor Law Comrs. PP 1837-8 xxviii, Appendix A, supplement 2, p.94; 5th Rep. Poor Law Commrs. PP 1839 xx, Appendix C no. 2., p. 106.

23. M.D. George, London Life in the 18th century (1966 ed.) pp.28-9; Ashworth, p.48.

24. Stedman Jones, pp. 179-80.

25. Rep. Sel. Cttee. on Met. Improvements, PP 1836 [517], xx, pp. 2-8, 36.

26. E. Herries, Memoirs of John Charles Herries (1880) ii, p.177.

27. 2nd Rep.Sel.Cttee on Met. Improvements, PP 1837-8 xvi, plan 2.

28. In 1834 Pennethorne had apparently proposed continuing the street east through the City to Commercial

Road: PP 1847 xvi, p.9.

29. PP 1837-8 xvi, pp. v-x.

30. Hansard, xlv. cols. 311-4.

31. 1st Rep.Sel.Cttee. on Met. Improvements PP 1839 xiii [136], pp.v-vi.

32. George, op. cit. p.54, 128-9, etc.; F. Beames, The Rookeries of London (1860), pp.25-39.

33. Jnl. Statistical Soc. of London ix. (1848), pp.16, 19.

34. Rep.Sel.Cttee. on Health of Towns, PP 1840 xi. [384], pp. 171-2.

35. PP 1836 xx., p.36.

36. PP 1837-8, xvi, pp.180-1; Cres 2/673.

37. PP 1828 iv, pp.115-7; 1837-8, xvi, p.vii.

38. C. Knight, London Pictorially Illustrated, ii., pp.389, 398-400.

39. PP 1837-8 xxviii. p.9.

40. PP 1837-8 xvi, p.103.

41. Hansard xlix, 726-7, 24 July 1839.

42. Survey of London xxvi., p.256.

43. Works 6/92, pp.6,11-12; Cres 19/23, pp.23,277., 10 Oct. 1839.

44. PP 1839 xiii, pp.11-15; T1/3990, 25 May 1839; Works 6/99, pp.8-9.

45. Works 30/431/436; MR 1082/15. Rhodes had made plans for streets in the area of Cranbourne Street and New Oxford Street in 1827-8: PP 1837-8 xvi, plans 1,3-4.

46. PP 1840 xii., pp.13-14.

47. ibid. p.1.

48. D. M. Pinkney, Napoleon III & the Rebuilding of Paris, Princeton (1958), pp. 5,37,176-182; A. Sutcliffe, The Autumn of Central Paris (1970), pp. 6, 23-42.

49. RIBA Trans. 1871-2, pp.63-9.

50. Westminster Rev. xxxvi (1841), p.422.

51. PP 1840, xii., pp.36-43, 46, 60.

52. ibid., p.50; Works 30/432.

53. PP 1840 xii., p.41-3, 62.

54. MPE 789; Survey of London xxxiv., pp.352-3.

55. Westminster Review xxxvi. (1841), pp.404-435. The writers were W.H.Leeds and W.E.Hickson. (I owe this information to Robert Thorne).

56. The committee also recommended contributing to the cost of two other urgently needed new streets in poor districts: a northern extension of Farringdon Street from the City boundary to Clerkenwell Green, and a street in Southwark to be driven from Borough High Street to Southwark Bridge Road. Both had been mooted by local Improvement Commissioners.

57. J. P. Lewis, Building Cycles and Britain's Growth (1965), p.82.

58. 18th Rep.Comrs. of Woods, etc., PP 1841 [426] xii., p.11; 19th Rep.Comrs. of Woods, etc. PP 1842 [573] xxv, pp.7-8.

59. Works 6/92, /93, passim.

60. Times, 3 Oct. 1841, p.3, col.4.

61. Works 6/99, pp.350-1.

62. T25/18, p.486, 7 Jan. 1843.

63. 23rd Rep.Comrs. of Woods, etc. PP 1846 [717] xxiv., p. 8-9.

64. PP 1847-8, xxxix [440]; B.L. Add MS, 44796, ff.109-128.

65. e.g. Builder 11 May 1844, p.239; Works 6/93,pp.273, 468; /94, pp.8, 34, 45, 52.

66. Times 27 Jan 1845, p.4.,col.5; Works 6/94, p.225.

67. T1 6693A/3774; T25/19, p.304.

68. Works 6/92, p.105; /100, p.184.

69. Cres 2/670, 6 May 1844; Works 6/100, pp.56-8; MR 1082/10-11.

70. MPEE 50.

71. Cres 2/670; Survey of London xxiv. p.354.

72. e.g. Cres 2/670, 30 Nov. 1844, 9 Jan 1845, 19 Dec.1844; Works 6/94, pp.410-1.

73. T25/10, pp.71-2, 29 Nov. 1845; Works 6/100, p.99-104.

74. ILN x. 2 Jan 1847, p.15; Cres 2/672, 18 Sept. 1848; Companion to the Almanac (1850), p.227.

75. Cres 2/670, 2 July 1844, and 30 Nov. 1844.

76. Works 6/94, pp.410-1. Pennethorne revised the design which had been sent in by the developers, J. & W. Bennett.

77. Cres 2/672.

78. It is illustrated in Companion to the Almanac, (1851), p.229.

79. Cres 2/706, 30 Oct. 1854; Walford Old and New London

iv, p.487.

80. For details, see H.P.Clunn, London Marches On (1947) pp.49-51, and The Face of London (n.d.)pp.135-7.

81. Works 6/94, pp.151, 183, 379; The original drawings for Pennethorne's building are in RIBA drawings coll., X 20/19. The chapels are shown in a drawing in the Guildhall Library, reproduced in R. Hyde & J. Hoole, Getting London in Perspective (Barbican Gallery exhibition catalogue 1984), p.87.

82. e.g. Westminster Review xxxvi (1941), p.414; Civil Engineer and Architects' Journal vii. (1844), pp.63-4.

83. H. B. Wheatley & P. Cunningham, London Past and Present (1891), vol.1., p.209.

84. Companion to the Almanac (1847), p.232..

85. ibid. p.231.

86. Cres 2/671,

87. See Post Office London Directory (1851), pp.205-6, 423-4, and later editions.

88. Post Office London Directory (1860), p.317.

89. Survey of London xxvii, p.258-60; Works 6/100, p.205, etc.

90. e.g. Works 2/10, pp.327, 730-3.

91. Builder 28 May 1859, p.360; BN 18 Nov. 1859, p.1936; Walford Old and New London, iii, p.208.

92. Jnl.Statistical Soc. of London xi (1848) pp.19-20; Builder 1 Dec. 1866, p.87-8; Mechanics Mag. xxvi (1871), p.273.

93. Punch ix (1845), p.64.

94. Builder, 15 March 1845, p.121; Hansard, lxv, 1 April, 1842, 895-6.

95. Times, 1 Dec. 1842, p. 5, col. 5.

96. 5th Rep. Commrs. for Improving the Metropolis, PP 1846 xxiv [682] p.3.

97. Works 6/102-3 passim.

98. 1st Rep. Comrs... [for] Improving the Metropolis PP 1844 [15] xv p.7; Barker & Hyde, pp. 82-92.

99. 2nd Rep. Comrs... [for] Improving the Metropolis PP 1845 [348] xvii. pp. 3-13.

100. 5th Rep.Commrs... [for] Improving the Metropolis, PP 1846 [682] xxiv.

101. 3rd Rep. Comrs... [for] Improving the Metropolis, PP 1845 [619] xvii; pp.iv, 3-4, 25-6.

102. 6th Rep.Comrs...[for] Improving the Metropolis, PP 1848 [861] xvi.

103. 7th Rep. Comrs... [for] Improving the Metrop., PP 1851 [1356] xxix, p.6.

104. For the origins of this street, see Barker and Hyde, pp.165-8. See also 28th Rep. Comrs. of Woods etc., PP 1851 [631], xxix pp.14-15; Works 6/176, ff. 376-381, 557; ILN 6 Sept. 1851, p. 275. The superintending architect was Henry Ashton.

105. T.L.Donaldson, "Some Description of the streets proposed to be formed by the Metropolitan Board of Works RIBA Trans 1856-7, p.89.

106. Works 6/138/15, ff.10, 37; /139/1, f.2; Works 1/53, p.316; /54, p.43; /59, p.76. BN 2 March 1860, p.169.

107. 4th Rep. Met. Improvement Commrs. PP 1845 [627] xvii, p.9; Rep.Commrs. for establishing Railway Termini, PP 1846 xvii [719], p.60. The station has since been destroyed.

108. 26th Rep. Comrs. of Woods, etc. PP 1849 [611], xxvii, p.11.

109. Survey of London xxvii., pp.258-60.

110. PP 1840 xii p.vi; Times 9 Aug 1842, p.6, col. 4; Works 6/103, pp.18-20; Works 6/147/4, f.1.

111. 3rd Rep. Sel. Cttee. on Westminster Bridge and New Palace, PP 1846 xv. [574] pp.159-60.

112. ibid. iv; Hansard xc 23 Feb. 1847, 306. Works 30/471 contains unexecuted plans by Pennethorne for new northern approaches to the bridge, which was erected to the designs of Thomas Page in 1854-62.

113. Works 6/147/4, ff. 6-7, 10-11, 21-22; Rep. Sel. Cttee. on Met. Communications, PP 1854-5 x [415] pp. 168-9.

114. 6th Rep.Comrs. for Improving the Metropolis, PP 1847 [861] xvi, pp.12-15, 20-21 and plan 2.

115. H.P.White, London Railway History (Newton Abbot 2nd edn. 1971) passim.

116. PP 1846 xvii, pp.56-62, 204-7. The Clerkenwell terminus was favoured by several railway companies: see Getting London into Perspective, pp.69-60.

117. PP 1854-5 x, pp.iii-iv, 78-9, 101, 150-8, 164-70.

118. Hansard xcviii, 12 May 1848, 932; Builder 20 May 1848, p.250.

119. I. Darlington, "The Metropolitan Buildings Office", Builder 12 Oct.1956, pp.628-632. Pennethorne was an official examiner under the Act.

120. Sheppard, pp.277-8; Owen, pp.23, 32. For Hall's part in the reform of London's government, see National Library of Wales Journal xiv (1965-6), pp.206, etc.; xv (1976-8), pp.76-7.

121. T26/1 pp.415-6.

122. RIBA Trans 1856-7, p.90.

123. For Pennethorne's involvement with planning the Embankment, see below, p. For the M.B.W's streets, see P.J.Edwards, History of London Street Improvements 1855-1897 (1898).

124. PP 1854-5 x., p.158.

125. C. Hussey, The Life of Sir Edwin Lutyens (1950), p.123.

CHAPTER 3 (Footnotes on p.163)

THE CROWN ESTATE AND THE WEST END

Pennethorne's involvement in the planning of London extended beyond the making of new streets. As joint architect and surveyor to the Crown Estate in London from 1840, and sole architect after 1844, he had important responsibilities for large areas of Westminster and the West End. These responsibilities lasted until he retired in 1870.

The Crown Estate was made up of land vested in the Queen in her public capacity ([1]). It was treated like any other estate in London and managed for profit, as indeed it is today. Since coming under Parliamentary control in 1760, the profits had been applied to support the expenses of the Crown, thus enabling the taxpayer to be relieved of some at least of the burden of the Civil List. Expenditure on maintenance and other projects came under Treasury scrutiny, and in the early 19th century there was an effort to improve management by selling off detached and otherwise unprofitable pieces of land ([2]). From 1832 to 1851 the Estate formed part of the unwieldy empire controlled by the Commissioners of Woods, Forests and Land Revenues; after the creation of a separate Office of Works in 1851 it became the sole responsibility of the remodelled Woods and Forests

department, under the former Second Commissioner, Charles Gore. Its income was kept totally separate from that of the Office of Works, but Pennethorne continued to work for both departments.

Pennethorne's responsibilities were confined to the Crown's estate in London and Windsor. These were the most lucrative lands, the rest consisting largely of the royal forests. The Crown was one of the largest landowners in the West End; in 1869 there were over 3000 houses within 3 miles of Charing Cross which yielded over £150,000 a year in rents ([3]). It owned much of the land between St. James's Park and Piccadilly, including Pall Mall (but not St. James's Square); much of the land between Whitehall and the river (the site of the old Palace of Whitehall); Trafalgar Square and the area to the east where Nash had carried out his "West Strand Improvement"; Regent Street with its southern tributaries (Haymarket and the surrounding streets); and the Regent's Park terraces, and the streets to the east, including Albany Street and the Park Villages. There were also the royal parks and palaces, and some isolated pockets of property elsewhere.

Most of the Crown Estate had been built up or rebuilt in the 18th or early-19th century; much of the land was still occupied by private houses (Plate 41). Most were well-built and substantial, ranging from the aristocratic mansions fronting Green Park to the plain

and sober 17th-and 18th-century houses which lined the side streets leading off St. James's Street. There were also shops, especially in St. James's Street, the Strand and Regent Street, and some public buildings, especially in and around Whitehall. An estate situated in the heart of the West End could not escape the changes which transformed 19th-century London, and already buildings were appearing which reflected the capital's growing role as a centre of entertainment and fashion: clubs, theatres, public halls, and hotels. These developments were bound to change the architectural character of the area.

The main aim of the Crown Estate administrators, like the agents of the great aristocratic landlords, was to maintain and enhance the value of the existing property, and to profit from commercial development without driving out the wealthy residents ([4]). As a public body, the Commissioners of Woods and Forests also recognised a need to maintain public amenity, especially in the vicinity of the royal parks and the centre of government in Whitehall. These aims required an essentially conservative approach on Pennethorne's part. There was little oppportunity for displaying the boldness of a John Nash or a Thomas Cubitt. Much of the work took the form of fixing leases, ensuring that the respectability of neighbourhoods was maintained, and vetting changes to buildings. These routine tasks involved a constant

attention to detail, and the writing of innumerable letters and reports ([5]).

After the reform of the Woods and Forests in 1832 the Commissioners embarked on a policy of enforcing better tenancy agreements when old leases fell in ([6]). Most Crown houses were held on 99-year building or repairing leases, many of them dating from the time of Nash. Pennethorne therefore had to renew leases for houses built in the mid 18th century or earlier, and to issue new leases for new or altered buildings. These leases fell in at different times, and since it was the policy of the Crown Estate to renew leases to existing tenants wherever possible, the possibilities for large scale rebuilding were small. Building and alterations were the responsibility of the lessee, but before a new lease was issued Pennethorne had to scrutinise plans, inspect the building, and then to report on its improved value ([7]). This task required an intricate knowledge of commercial conditions. As the Commissioners' professional advisor, his advice was usually accepted, and he took a percentage fee on each transaction. These fees constituted a quarter of his total income in the late 1840s and 1850s ([8]).

An important part of the task of any responsible urban landlord was to maintain the intended social character of the estate. The Crown Estate in London contained some of the smartest streets in the

West End but there were also some shabby and peripheral areas, especially to the east of Regent Street and Regents Park where Nash had laid out streets for an artisan population. Without constant vigilance, they could degenerate into slums. With the population rising fast, it was important to prevent overcrowding, and to ensure that inadequate sanitation did not cause rampant disease and create the other social ills which might cause the inhabitants of the smarter houses nearby to flee elsewhere. Crown leases were drawn up strictly to prevent overcrowding and noxious trades, but the conditions of the lease were sometimes ignored. In 1848, for instance, Pennethorne stepped in to prevent a tenant of some stabling in a mews off Albany Street from turning the stables into houses ([9]). In the following year he reported that 29 people were occupying seven sets of stables in Russell Mews without a single privy ([10]). These and other abuses were remedied, and for the most part the Crown Estate retained its exclusive social character. In the relatively few places where Crown property was not only overcrowded, but also old and badly built, Pennethorne usually recommended rebuilding. Thus Darby's Court, off Piccadilly, disappeared in 1846 to make way for his new Geological Museum ([11]).

Like a local authority planning officer today, Pennethorne had to pass aesthetic judgement on proposals for new buildings and alterations to old

ones. He designed few buildings on the Crown Estate himself, but he was brought in to examine the designs of others on many occasions. He took this responsibility seriously, and in 1854 he told Charles Gore that "... the Buildings on the Crown Estate, more than on private property, ought to be designed with peculiar regard to Architecture for the improvement of the appearance of the Town generally ... such views were I know entertained by Mr. Nash and by former Boards of Works who concurred with him in endeavouring to improve the Architecture of London - and whose exertions certainly infused a new spirit into our Street Architecture". In private houses or commercial buildings he thought that architectural considerations "ought not to be allowed to interfere to any great prejudice of Speculators or with the requirements or profits of Trade". But he was convinced that ".... the guardianship of the Commissioners of Woods does extend to the Architecture of Public Buildings on the Crown Estate and is not confined merely to pecuniary considerations, regarding the Land Revenues" ([12]). This belief led him to insist on alterations to some of the projects sent to him, especially those with frontages to important streets like Pall Mall.

By Pennethorne's time Pall Mall had already begun to be one of London's most distinctive and impressive streets. Nash had been deeply involved in the original decision to house clubs there, and had

designed the first of them, the [Senior] United Services Club, himself. The Travellers', Reform, Carlton, Oxford and Cambridge, and others followed in rapid succession, giving London a display of revived Italianate architecture second to none in Europe Plate 42a). Pennethorne favoured housing even more clubs in Pall Mall and St. James's Street, believing that "[the] Club Houses ... are usually built so solidly, and so regardless of expense, that the rents they will command at the end of the several leases will be very large:- probably much higher and much better secured than any Rents, which would be derived from Trade or Dwelling Houses built on the same site" ([13]). He himself designed an important addition to the Ordnance Office on the south side of Pall Mall, which enhanced the Italianate character of the street ([14]).

Pennethorne rarely forced architects to make substantial alterations to their plans for new buildings. He made no objection to the building of James Knowles's exuberant Thatched House Club of 1862 on a site in St. James's Street adjoining the sober Conservative Club, built twenty years earlier to the designs of George Basevi and Sydney Smirke (Plate 43a). He was also prepared to countenance the destruction of unfashionable older buildings, like the east wing of the late-17th-century Schomberg House in Pall Mall, which was demolished in 1851, on the grounds of structural inadequacy ([15]). But he kept a very close

watch on anything which might spoil the existing club houses. In 1854 he successfully opposed plans for building a bow window onto the Pall Mall front of Decimus Burton's Atheneum, and in 1858 he suggested alterations to Burton's own proposals for removing the portico to the United Services Club ([16]). In another letter of 1868 which reveals something of his own architectural philosophy, he backed E. M. Barry's complaint about the proposed replacement of his father's stone balustrades on the balconies of the garden front of the Travellers' Club by iron bars: "I think that connoisseurs in Architecture must be offended, and that great injury would be done to the reputation of Sir Charles Barry if the iron railing were allowed to remain; also, considering how little good Architecture there is in London, and how much care is bestowed in the first instance upon the selection of a design for these Club Houses ... I think it is incumbent upon the Crown ... to protect such Buildings from mutilation" ([17]). His advice was taken and the stone balustrades rebuilt (Plate 42b).

The other great architectural showpiece on the Crown Estate was Nash's triumphal route, Regent Street (Plate 44a). Here Pennethorne faced pressures of another sort. As Nash had anticipated, the street was commercially successful, but by the 1840s there was a general demand for more enticing shop fronts. Swan and Edgar's received a spectacular new front with

plate-glass windows to Piccadilly Circus in 1841, and in 1846 the shopkeepers in the nearby Quadrant were complaining that the Doric colonnade - one of Nash's master-strokes - was preventing them from sharing in the general prosperity. According to one tenant the covered walk afforded "haunts of vice and immorality ... which no police or watchfulness can prevent", while another complained that it was "almost impossible to procure lodgers for the upstairs apartments". On one estimate the Crown was losing £10,000 a year in rents, and the tenants a comparable sum in trade ([18]). Impressed by these calculations, the Commissioners of Woods and Forests obtained an Act of Parliament (11 & 12 Vict. c.50) enabling them to remove the colonnade. Pennethorne supplied drawings for the remodelled facades in September 1848, and by November the demolition was completed, to the satisfaction of the shopkeepers and the fury of those few who still cherished Nash's vision ([19]).

Pennethorne's own feelings on the removal of one of his mentor's most imaginative pieces of urban design are not recorded, but he certainly acquiesced in it, and did his best to mitigate its effects by designing the new frontage to the street. The most striking feature was a cantilevered balcony to the first floor. The windows were given prominent architraves and enriched ornamental panels separated by pilasters decorated with arabesques were placed at

mezzanine level (Plate 44b). The alterations gave the Quadrant an Italianate character in keeping with most of the newer London street architecture of the time, but they can hardly be called an aesthetic improvement, and the removal of the colonnade seems to have had little effect on the morals of London. It was perhaps no great loss therefore when the original 99-year leases fell in and the Pennethorne facades disappeared to make way for Norman Shaw's and Reginald Blomfield's massive blocks which line this part of the street today ([20]).

By the 1860s the demand was growing for hotels and places of entertainment with frontages to the main streets of the West End. These buildings catered for a wider clientele than the socially exclusive clubs of Pall Mall, and were bound to be larger and brasher in appearance. Pennethorne could do little to turn back the tide of social change, and he was happy in 1865 to recommend the demolition of the shady White Bear inn in Piccadilly Circus, a former coaching inn but now a resort of sporting characters, for the Criterion Restaurant and Theatre, built just after his death in 1871 ([21]). The character of the northern end of Regent Street began to change with the building of St. George's concert hall on the site of the present B.B.C. building in 1865, and Pennethorne was unfortunately powerless to prevent the erection of John Giles's gargantuan Langham Hotel at the southern

end of Portland Place in 1864-6 - a grim foretaste of future developments ([22]).

Away from the main streets, Pennethorne was generally content to allow repairs or rebuilding to take place without imposing strict controls. The plain brick houses which covered much of the Estate would be valued today, but they were not considered worth preserving in the mid 19th century. In 1865 Pennethorne expressed reservations about a proposal by John Norton for a block of chambers in brick and terracotta with round-arched windows, in Ryder Street, St. James (Plate 43b). The design reflected the new vogue for the mediaeval architecture of northern Italy for which the older architect must have had little sympathy, but he felt it "unnecessary to object to [it] in a secondary street" ([23]). Rebuilding in the area between Piccadilly and Pall Mall gathered pace in the 1860s, some of it to the designs of Pennethorne's assistant and pupil - and eventual successor - Arthur Cates. Cates prepared a design for no. 30 Duke Street in 1861, and went on to design several ornate facades in Piccadilly, Jermyn Street, and the Strand (Plate 45a) ([24]). This piecemeal rebuilding gathered momentum after Pennethorne's death, as the leases of the 18th-century houses fell in. It resulted in the transformation of the area into a rather less architecturally distinguished version of the renovated Grosvenor estate in Mayfair, and today the predominant

character is late Victorian and 20th-century.

With the most profitable parts of the Crown Estate already built on, Pennethorne had few opportunities of planning new housing developments. Those schemes in which he was involved all lay outside the heart of the main West End estate. Some were around the new suburban parks laid out by the Woods and Forests; these developments are discussed elsewhere. Others lay in pockets of land which had so far escaped building operations. Unlike Nash, Pennethorne never acted as a speculative developer himself, and on these estates his main task was to supervise the layout of the streets and the designs of houses prepared by other architects and builders.

The unoccupied land included a shabby and marshy tract on either side of Vauxhall Bridge, stretching north to Millbank Penitentiary (the side of the present Tate Gallery). Development only became feasible here after the property values rose following the building of the adjacent estate in Belgravia and Pimlico belonging to the Marquess of Westminster. The developer there was Thomas Cubitt, and it was he who built the relatively modest terraced houses on the Crown land at Millbank, starting in 1842 ([25]). The surviving houses to the north of Vauxhall Bridge Road consist of three-storied stuccoed blocks with round-arched windows in the Nash manner facing the river (Plate 45b), with plainer houses in the streets behind.

In 1842 Pennethorne produced a plan for laying out the ground to the north and west of the prison, but it was not carried out, and today much of that area is occupied by one of the first of the London County Council's housing estates ([26]).

The most impressive development on the Crown Estate in Pennethorne's time was in Kensington Palace Gardens. Speculative building was spreading westwards along the Bayswater Road towards Notting Hall Gate in the 1830s and 40s, and in 1838 the Commissioners of Woods and Forests mooted the idea of building on the 28-acre kitchen gardens to the north of Kensington Palace; the garden activities would meanwhile be concentrated in Windsor Great Park ([27]). The plan, first framed by Chawner, involved the construction of a wide and straight street lined with trees from Kensington High Street north to Bayswater Road, with houses on both sides of the northern part (Plate 46). Pennethorne first became involved in the scheme in 1841 when he helped Chawner draw up the stipulation for leases together with a detailed plan showing 33 building plots ([28]). The site was prepared and the plots advertised for letting in 1842. Development only got off the ground when John Marriott Blashfield, a pioneer of terra-cotta and a manufacturer of mosaic pavements, agreed to take 20 plots in September 1843 ([29]). It was held up when Blashfield went bankrupt in 1847, but the remaining plots were filled in the more

favourable economic climate of the 1850s.

The houses were designed by several different architects chosen by the often plutocratic lessees. Most plumped for Italianate designs, and in its present, largely unaltered form, the street forms an even better monument to that phase of architectural taste than Pall Mall (Plate 47). Pennethorne expressed positive enthusiasm for some of the designs, especially those emanating from Charles Barry's office, and suggested few changes. He was even prepared to allow some lapses from the Renaissance manner, as in the "Moresque" (Moorish) external decoration proposed by Owen Jones for two of the houses (nos. 8 and 24) on the western side of the street, and the Tudor manner employed by Lord Harrington in his house (no.13), designed by C.J.Richardson on the east - a style stipulated by Lord Harrington as a condition for taking the plot ([30]). Despite the conversion of many of the houses into embassies, the street - almost alone among those of West London - still retains its character of jealously-guarded privacy and restrained opulence. Nowhere else in London can the mid-Victorian suburban ideal be better appreciated.

At its southern end the new street crossed Palace Green, an open space in front of Kensington Palace. There was no building here until the 1860s, when Pennethorne proposed the removal of the existing "low, old, plain and unsightly brick houses" which

faced the Palace. The first of the new houses (no.2) was built for the novelist William Makepeace Thackeray. Pennethorne approved the then rather unusual red-brick elevations in 1862 on condition that stone was used for the dressings and that "all the Details be copied from those of Marlborough House", which he was currently remodelling. Today the house stands as a rather clumsy precurser of much later neo-Georgian architecture (Plate 48) ([31]).

Pennethorne was much less happy about a design prepared by Philip Webb in 1867 for the adjoining house (no.1 Palace Green), and the ensuing controversy throws an interesting light on the changing architectural tastes of the time. Webb's design (Plate 49) was somewhat stark, as one would expect from the designer of William Morris's Red House, and it was no doubt its uncompromising quality which appealed to the patron, George James Howard, the art-loving nephew of the earl of Carlisle ([32]). Pennethorne told Charles Gore that Webb's elevations were "almost unintelligible", and the house "... if built according to them would be <u>far inferior</u> to any one on the Estate - it would look most common place - and in my opinion [would] be perfectly hideous - it is probably intended for dutch or german but is unsuitable for London". He wrote in more measured tones to Webb that "[my] objections to the design are perhaps not so much to the style (though that I think unsuitable) as to the fact

of the whole house being a mass of red without relief of any kind; the windows small and the form not attractive; - the gable also of the roof towards the Road would not I think produce a good effect". Webb expressed some surprise that Pennethorne should try to "hinder the erection of a building which ... possesses character and originality, tempered most certainly with reverential attention to the works of acknowledged masters of the art of architecture." He agreed to modify his design so as to include some external stonework, but when Pennethorne insisted in February 1868 on the extra addition of a heavy stone cornice, he refused to conform and threatened to resign as architect. Howard now approached William Butterfield for a new design, but told Gore that "... the prejudice expressed by Mr. Pennethorne against that gentleman does not encourage me to make this fresh outlay of time and money, subject as I am to the arbitrary assertions of Mr. Pennethorne's taste." In the event, Butterfield turned down the offer, and Pennethorne agreed to a suggestion by T. H. Wyatt that a brick cornice should be substituted for a stone one in Webb's revised design. The house was completed to this design in 1869, and Howard took possession in the following year ([33]).

The final compromise shows how difficult it was for one man to act as architectural dictator for even a limited area of London in the second half of the

19th century. The architectural philosophies of Webb and Pennethorne were diametrically opposed, but by the 1860s Pennethorne's attempt to enforce a modicum of classical propriety had little chance of success. Thackeray expressed a growing feeling when he said in 1860 that he "should die from a surfeit of stucco". The way now lay open for the seductive charms of "Queen Anne" and the wild extravagence of the Edwardian Baroque.

Apart from his surveillance of the Crown Estate, Pennethorne's main contribution to the West End of London lay in formulating, and in some cases executing, plans for the development of the areas surrounding the Royal Parks and Whitehall. The parks have always been among London's most valuable assets but as the city spread they became increasingly vulnerable. Their former aristocratic seclusion became more and more difficult to maintain in the face of increasing use by ordinary Londoners, and their very presence caused traffic jams in the narrow adjoining streets. After the reorganisation of the Woods and Forests department in 1851, the parks came under the control of the revived Office of Works, and important changes in their layout were instigated by two Chief Commissioners, Sir Benjamin Hall and William Cowper ([34]). Flower beds appeared for the first time, and bands began to play on Sunday afternoons, to the horror of the Sabbatarians. These matters did not come within

Pennethorne's purview, but as architectural adviser to the Office of Works, and as architect to the Crown Estate, his advice was often sought - and sometimes taken - over the worsening traffic problems. The solution he provided to those problems helped change the appearance of the West End.

The first of these plans was for the "Pimlico Improvement" at the south-western corner of St. James's Park adjoining Buckingham Palace. Nash had made plans for developing the southern side of the park with terraces in 1828, but they were never carried out. He wanted the Palace in effect to form part of the park, with no through traffic passing in front of it (Plate 50a). In 1832 Rigby Wason and William Bardwell, the promoters of Victoria Street, produced a scheme for driving a new thoroughfare through the warren of narrow streets and courts on the south side of the Palace. There was an inn facing the grounds, and the area was crossed by the open Kings Scholars Pond Sewer, notorious for its "disgusting and dangerous effluvia"; as so often, it was hoped that the building of a new street would lead not only to better communications, in this case from Belgravia to Westminster and the West End, but also to improvements in the general sanitation of the area ([35]). In 1838-40 therefore the Commissioners of Woods and Forests bought a block of land south of James Street, the eastern part of the street now called Buckingham Gate ([36]).

The immediate impetus for building the new street came early in 1851 when the government agreed to add a new south-west wing to the Palace, extending over the old roadway. By now Victoria Street was completed, Belgravia largely built up, and the area adjoining the Palace poised for profitable development. Pennethorne, with his extensive experience of managing street improvements, was asked to prepare a new plan, which showed a broad street with a square in front of the new service courtyard, and substantial houses facing the Palace gardens ([37]). The street was to be built by the Office of Works under Pennethorne's supervision, and he was later given the commission for designing the Palace extension. An Act of Parliament was passed in 1852 (15 & 16 Vict c. 78) to enable the street to be completed, but in 1853 the plans were changed to form a more direct route, allowing more space around the Palace ([38]). In place of the proposed square, the angle between the new street and James Street was now to be occupied by a new office for the Duchy of Cornwall, completed to Pennethorne's designs in 1854 ([39]). As so often, the costs escalated as a result of excessive awards by juries to shopkeepers for the loss of "goodwill", and the whole street was not finally completed until the end of 1858 (Plate 50b) ([40]).

Early in 1859 Pennethorne prepared a plan for letting the ground facing the Palace on building

leases. It was to be filled with substantial "first-rate" houses, a new district post office and a large hotel designed by James Murray, a pupil of Sir Charles Barry in the Italian palazzo manner ([41]). The Post Office (since demolished), a plain well proportioned Italianate building, was designed by Pennethorne himself, and completed in 1861 (Plate 51a), but the design of the houses was left to the lessees and their builders, Kelk and Trollope. Pennethorne specified the dimensions, and also supplied an elevation showing his own preferred treatment of the facades, in which the houses would form part of a single composition articulated by a Corinthian pilaster order ([42]). The French-inspired design is impressive and monumental, but Pennethorne was not in a powerful enough position to force his aesthetic ideas on his employers, and as a result, the facades were designed by the builders in the conventional stuccoed Italianate manner adopted all over the smarter parts of west London (Plate 51b) ([43]). The houses were completed in 1860, and the hotel in the following year, after Pennethorne had been reprimanded for allowing the upper storey to overlook the Palace gardens ([44]). Today the street is a largely unchanged example of a Pennethorne-inspired townscape.

As a result of a further alteration in London's street pattern conceived by Pennethorne, the "Pimlico Improvement" soon became part of an important route from the West End to Victoria and points beyond.

Before the 1850s, traffic going south from Piccadilly had to pass through the stable yard of St. James's Palace. The eastern part of the Mall was closed to vehicles and there was no opening where Admiralty Arch now stands ([45]). The park itself remained as Nash had left it, its lake an obstacle to pedestrians and carriages alike.

Pennethorne first became involved in discussions about the future of St James's Palace and its surroundings in 1844. He suggested driving a road from St. James's Street to Westminster through the fire-damaged eastern quadrangle of the palace, and thence across the park. Further relief would be obtained by extending Pall Mall west to Green Park, from which point it could be linked to the front of Buckingham Palace by a short road ([46]).

Nothing was done until 1855, when Sir Benjamin Hall asked for plans for a road across St. James's Park. Pennethorne proposed demolishing (and presumably re-erecting) Inigo Jones's Queen's Chapel and crossing the park lake by a bridge of decidedly French Beaux Arts character (Plate 52), with three low arches of iron, its piers surmounted by ponderous pedestals supporting hefty gesticulating figures ([47]). In other plans submitted at the same time he proposed linking the Mall with the "Pimlico Improvement" roads and carrying Lower Regent Street down to the Mall between the two blocks of Carlton House Terrace; from

here the traffic could reach Westminster via Horse Guards Parade ([48]).

These proposals would have transformed the character of the park. They were supported by the Queen and Prince Albert, but vociferously opposed by the Times and by some M.P.s, whose criticisms led to the appointment of a Commons Select Committee early in 1856 ([49]). The more ambitious schemes would have involved expensive compensation of Crown tenants, and the committee recommended building only the road through St. James's Palace to the Mall, and the southern extension of Lower Regent Street, with a footbridge instead of a road bridge over the lake ([50]). After further criticism the Cabinet decided to abandon the southern extension of Lower Regent Street. Some M.P.s feared for the effect of even the attenuated plans on the beauty of the park and the pockets of taxpayers; one even went so far as to say that "... if people learned that such improvements as these caused them to pay a double price for their sugar and their tea... they would soon begin to inquire what was the difference between a President and a Prince". The Government's request for the money was defeated, but modified schemes for a road passing to the west of the Queen's Chapel and a suspension footbridge were passed in June 1856 ([51]). The road was made under Pennethorne's supervision in the latter part of 1856 (Plate 53), but apart from the design of a plain

single-storey lodge and gates to Marlborough House, his aesthetic contribution was virtually nil ([52]). As a traffic improvement, though, the street performed a useful function, as it still does (Plate 54). Pennethorne's final impact on this corner of London took the form of completing the eastern range of Carlton House Terrace to Nash's design in 1862-4, after the demolition of the old stables and riding house of Carlton House, in which public records had been stored ([53])

By the 1850s fashionable London had spread both north and south of Hyde Park and Kensington Gardens. A large part of the ground to the south was purchased by the Commissioners for the Great Exhibition, and in 1853 Pennethorne produced several plans for developing the estate with spacious and magnificent public buildings, including a new National Gallery ([54]). The plans were not accepted, and South Kensington was developed on less monumental lines. With houses being built up in large numbers on both sides of Hyde Park, the streets on either side became intolerably congested, and in 1855 the Select Committee on Metropolitan Communications recommended a plan prepared by Pennethorne for a low level route for cabs and carriages through Kensington Gardens. It would pass from Exhibition Road to Lancaster Gate along the western side of the Serpentine by the site of the present Peter Pan statue, and thus relieve Park Lane

and Kensington Church Street. Nothing was done until the time of the 1862 International Exhibition, when a temporary route following the more tortuous line of the present road over the Serpentine Bridge was opened with a new entrance at the northern end of Exhibition Road ([55]). This "temporary" route eventually became permanent, and Pennethorne's carefully engineered scheme which would have passed beneath Rotten Row under an iron bridge was forgotten.

As a further measure of improvement, the Metropolitan Board of Works prepared plans in 1864-5 for widening Park Lane and extending it at its southern end through Crown property in Hamilton Place to Hyde Park Corner. Pennethorne was asked to report on this scheme, which was finally carried out in 1869-71 ([56]). The widening of the street made it necessary to rebuild Stanhope Gate Lodge, designed by Decimus Burton in 1825, and in 1867 an extra gabled storey was added to Pennethorne's designs ([57]). Not one of his most distinguished designs, this rather awkward-looking building was demolished as a result of a further widening of Park Lane in 1960-3.

In the last 20 years of his life, Pennethorne was deeply involved, as government architect, in plans for building new offices in Whitehall and elsewhere. These schemes, conceived in the Office of Works, had important implications for the planning of the whole area between St. James's Park and the river, much of

which formed part of the Crown Estate. The northern end of Whitehall had already been transformed by the construction of Trafalgar Square, and the southern by the building of the Houses of Parliament, but the intermediate area had never been laid out as a whole (Plate 55). In Pennethorne's time it was made up of a not unattractive mixture of reticent 18th-century aristocratic houses, many of them occupied by government departments, and rather narrow streets, interspersed with grander buildings like Inigo Jones's Banqueting House and Kent's Horse Guards (Plate 56). This was not the stuff of which imperial capitals were made, and in his scheme of 1846 for new bridges and streets on the South Bank, Pennethorne had proposed laying out the river bank on more monumental lines. Four years later he prepared another plan for laying out the northern part of the area between Whitehall and the river with new streets, houses and public buildings ([58]). It was not intended to be implemented until the mid 1860s, when the majority of the leases would have fallen in, and, it was hoped, the Thames Embankment built.

Starting in 1854, Pennethorne also produced a series of ever more ambitious plans for building desperately needed new government offices on the land between St. James's Park and Whitehall, south of the Horse Guards. They would have involved constructing a new square of government offices on the site of Downing

Street, and removing a block of houses between King Street and Parliament Street at the bottom of Whitehall, thus revealing of vista of the east end of Westminster Abbey. Nothing came of these schemes, and in 1856 Sir Benjamin Hall, the newly-appointed Chief Commissioner of Works, announced competitions for the layout of the ground on either side of Whitehall, and for a new Foreign Office and War Office. Some of Pennethorne's earlier proposals were echoed in the many schemes prepared in the aftermath of the abortive competition, but with the announcement of the competition he ceased to play any direct part in the evolving layout of the southern part of Whitehall himself ([59]).

The building of the long-awaited Thames Embankment figured in most plans for rebuilding the eastern side of Whitehall. With public concern about traffic congestion and pollution in the Thames increasing, a Select Committee was finally appointed in 1860 under the chairmanship of Sir Joseph Paxton. It was followed in 1861 by a Royal Commission whose task was to recommend a suitable plan and a method of financing it. The urgent need for sanitary reform played a large part, as it had in earlier metropolitan improvement projects, and after some controversy, Parliament finally agreed in 1862 to place the construction in the hands of the Metropolitan Board of Works and its engineer Joseph Bazalgette; the money

would be raised out of local rates, and a road built (instead of the public walkway Pennethorne had proposed earlier); it would run over the Metropolitan District Railway and a low-level sewer ([60]).

Pennethorne was not directly involved in planning the Embankment itself, but he was consulted over its effect on the Crown tenants along the existing riverbank at the southern end of Whitehall, and on the layout of the large quantities of reclaimed ground which would accrue to the Crown. The tenants were concerned about losing their private access to the river, and Pennethorne proposed diverting the southern end of the roadway from the river bank and taking it into Whitehall, which would be widened by the removal of the houses at the southern end ([61]). Pennethorne's solution was supported by a Select Committee in 1862, but his attempt to argue the case of the tenants like the Duke of Buccleuch smacked of aristocratic influence, and was attacked both in the Times and in the Commons ([62]). His plan was dropped in 1863, the roadway constructed along the river as far as Westminster Bridge, and the southern side of Bridge Street rebuilt with the generally undistinguished results we see today ([63]).

Further controversy arose over the use of the ground reclaimed from the river by the construction of the Embankment. With the Embankment nearing completion in 1868, Pennethorne revived his 1850 scheme for laying

out the Crown's portion of the reclaimed ground (Plate 57) ([64]). The Metropolitan Board of Works had already proposed building a new street from Trafalgar Square to the river along the line of the present Northumberland Avenue, and extending Whitehall Yard - now Horse Guards Avenue - through Crown land to the Embankment, as Pennethorne had suggested in 1850. The ground nearest the river would be devoted to public gardens ([65]). Pennethorne countered with a revised plan in which Northumberland Avenue would be replaced by a curved street starting further south, allowing for the redevelopment of the shabby groups of houses at the junction of Whitehall and Trafalgar Square, and the preservation of Northumberland House, one of London's great town houses. The whole of the area between Richmond Terrace and Trafalgar Square would be set aside for public offices, and Inigo Jones's vision of a magnificent new Palace of Whitehall posthumously revived in administrative guise ([66]).

Pennethorne never produced an elevation for his bureaucratic "Palace of Whitehall", although he suggested that it might be modelled on Somerset House. Unfortunately the politicians and civil servants failed to reach agreement about where the public offices should go, and most of Pennethorne's schemes came to nothing. Soon after he suggested the idea he was forced to retire from his official position. The gloomy Northumberland Avenue was built along the lines

suggested by the Metropolitan Board of Works in 1876, and in 1884 Archer and Green's spectacular block of flats, Whitehall Court, was built on Crown land along the former river frontage, under the aegis of Arthur Cates. William Young's Baroque War Office on the eastern side of Whitehall followed in 1898. The transformation was completed when the 18th-century houses of Whitehall Gardens, further south, were eventually replaced by the joyless Ministry of Defence, designed in 1913 but not completed until 1959. Viewed as a whole, the area is a monument to the uncoordinated official thinking which frustrated Pennethorne throughout his career as architect and city planner.

Pennethorne's career was overwhelmingly concentrated in London, but he made one foray into the planning of a provincial town, at Windsor. His activities here grew out of the transformation of the Castle begun by Wyatville in the 1820s and continued well into the reign of Victoria. As the castle became more splendid the Queen and Prince Albert became increasingly aware of the defects of the immediate surroundings, and especially of the numerous picturesque but ramshackle old houses "encroaching" on the moat ([67]). In 1846, therefore, after money had been voted for a new drainage and sewerage system Pennethorne prepared a detailed plan for widening High Street and Thames Street to 50 feet,

and demolishing the old houses. The street levels were to be made more regular, the moat to the west partially filled in, grassed over, and shut off from the street by iron railings, while on the north side a retaining wall was to be built, with a new gravel walk and steps up tree-planted slopes ([68]). The bulk of the cost, together with that of new roads in the vicinity, was to be found by the railway companies which had applied for powers to build branch lines to the town ([69]).

The street improvement scheme made slow progress, because the Commissioners of Woods and Forests lacked the power of compulsory purchase, and the widened streets were not paved until 1851-2, the last of the old houses remaining until 1857 ([70]). Anthony Salvin's remodelling of the Curfew Tower and the walls of the Lower Ward completed the Carcassonne-like picture of spruce antiquity (Plate 58). The improvements pleased the Queen, but in 1857 a "conservationist" writer in the Gentleman's Magazine thought that "... this may be an improvement in point of roadway and of cleanliness; but, after all, it destroys the romantic charm of the winding ascent and the picturesque effect of the ancient towers mounting over the roofs of the humbler dwellings beneath them" ([71]). Contemplating the bare expanses of grass today, it is difficult not to agree with him.

Pennethorne was also involved in laying out various lands held by the Crown to the south of the Castle. The town had begun to expand from its old,

cramped, centre after the passing of an Inclosure Act in 1817, and, with the population rising, the time seemed ripe in the 1840s to develop these lands for housing ([72]). The building of a new stable block to Wyatville's designs in 1839 freed the site of the old stables at the junction of High Street and Sheet Street, and in 1844 Pennethorne produced a plan for developing the site with terraced houses on either side of a diagonal road, work on which was delayed for several years ([73]).

To prevent low-quality speculative building which would prejudice the Castle's surroundings, the Crown also purchased the 287-acre Keppel estate which covered much of the land further south, adjoining the Great Park ([74]). The land was not deemed "ripe for development" until 1852, when pressure on housing had increased after the demolition of most of the old houses by the castle ditch. Pennethorne produced a plan for laying out 60 acres of the estate, to the west of Sheet Street, with new roads dotted with detached and semi-detached villas; the rest of the estate was to be developed gradually "according as the exigencies of the locality may call for further sites for building". The first of the new streets was built jointly with a local builder, and in 1855 Pennethorne was paid for laying out part of the land ([75]). Once again, however, the housing market was slow to respond, and it was a long time before the estate was fully built up. By then Pennethorne was dead, and today the area shows little signs of his skills

as an urban planner.

Pennethorne retired as architect to the Crown Estate in 1870. His successor was his pupil Arthur Cates, who continued his policies until his death in 1901 ([76]). Pennethorne's tenure of office marked a decisive break from the excitements of the Nash era. He indulged in no private building speculation, and unveiled no bold architectural projects. As government architect for the Metropolitan Improvements, he was no innovator; as architect to the Crown Estate he was a cautious conservative. His main achievement was to absorb and control the many changes which were altering the character of the West End of London. Generally speaking, the changes were absorbed in a way which did relatively little visual damage to the areas over which the Crown had control, and in some respects even enhanced them. For this, he deserves considerable credit.

1. R. B. Pugh, The Crown Estate, 1960, pp. 1, 15-16.
2. Rep. Sel Cttee. on Land Revs. of Crown, PP 1833 [677] xiv. pp. 28, 103.
3. T1/6936A/20938, PP 1849 xx, Appendix A; LRRO 1/2440.
4. Olsen, Growth of Victorian London pp.129-150.
5. PP 1849 xx. pp.127-130
6. Pugh, pp. 10, 17-19.

7. Survey of London, xxix, p. 11.

8. T1/6693A/3774.

9. Cres 19/35, p. 343; /36, p.15.

10. ibid. /36, p.6.

11. See chapter 6.

12. Cres 35/2227; Survey of London xxix, p.12.

13. Cres 35/2453.

14. See chapter 7.

15. Survey of London xxix, p.374. The present east range is a 20th-century replica of the original.

16. Cres 35/2227; Survey of London, xxix pp. 392, 396.

17. Cres 35/2226; Survey of London, xxix p. 404.

18. PP 1847-8 lx [519] pp.399-407.

19. Cres 19/35, pp. 205-6; Builder 4 Nov. 1848, p. 530. See also ILN xiii. 4 Nov. 1848, p. 280.

20. Hitchcock, Early Vict. Archt. p. 393; Hobhouse, Regent Street, pp. 72-3, 114-136.

21. Survey of London xxix, p.254; Hobhouse, op.cit. pp.76-8.

22. e.g. Cres 35/2148, 2252-4; Hobhouse, op.cit. pp.82-7.

23. Survey of London xxiv, p.319.

24. Cres 19/49, p. 133; /51, p. 124; LRRO 1/2158, /2283; RIBA drawings coll. W3/17-20.

25. MPEE 42/17; H. Hobhouse, Thomas Cubitt, Master Builder, (1971), p.220.

26. MPE 813.

27. Survey of London, xxxvii, pp. 151-2; MPE 758/1.

28. Cres 35/2116; MPE 758/3; MPE 874.

29. Survey of London, xxxvii, pp.153-161; M. Girouard, "Town Houses for the Wealthy", CL, 11 & 18 Nov. 1971, pp. 1268-1271, 1360-1363.

30. Survey of London xxxvii, p.171.

31. P. Metcalfe, "Postscript on Thackeray's House", Jnl.Soc.of Architectural Historians xxviii (2969) pp.115-119; Survey of London xxxvii, p.187-8.

32. W. R. Lethaby, Philip Webb and his Work (Oxford 1935), pp.86,277.

33. Cres 35/2127; Survey of London, xxxvii, pp. 185-7.

34. M. Fraser, "Sir Benjamin Hall in Parliament in the 1850s", National Library of Wales Journal xv. (1967-8), pp.310, 313-6; [Lady Mount Temple] Memorials of William Cowper (1890), pp.53-4.

35. 2nd Rep.Sel.Cttee. on Westminster Improvements, PP 1831-2 v.[614] p.3 and Plan A; Cres 19/35, p.54.

36. 15th Rep. Commrs. of Woods, Forests, etc., PP 1837-8 [721] xxxv pp.10-11; 18th Rep. PP 1841 xii, Appendix 8B.

37. Cres 2/1735; Works 19/9, f.3024; Works 30/446; Works 34/12.

38. Works 2/10, pp.291-5; Works 6/156/8, f.23; Builder 15 Nov. 1851, p.721.

39. Works 6/156/8, f.23; Works 38/77; PP 1856 lii, [193 (i)] pp.1-3 and plan.

40. Works 1/59 p.308; /60 pp.6, 368; Works 6/156/8, ff.12-16, 38; PP 1856 lii [193 (i)] pp.1-2; Hansard cxxxvii, 16 April 1855, 1479.

41. Works 1/63, p.333; /69, p.113; Works 6/155/18, ff 1-10; /147/3, f.56.

42. Works 38/50, 14 Jan.1859.

43. Works 1/61, p.182; /62, p.398; Works 6/155/20, ff.56-8, 105, 117; BN 28 Sept. 1860, p.748.

44. Works 1/68, pp.8-9, 28 March 1861; Works 6/155/9, ff.43-8.

45. Hansard cxl. 15 Feb. 1856, 1392.

46. Works 34/888; PP 1850 xxxiii [266], p.3; Rep. Sel. Cttee. on St. James's Park, PP 1856 vii. [85], p.8. The scheme was supported by Charles Barry, who proposed resiting the Marble Arch from Buckingham Palace at the entrance to Green Park: A. Barry, Life and Works of Charles Barry. p.286.

47. Works 32/225. [illegible]

48. Works 16/298.

49. Fraser, loc.cit., pp.317-18; Broadlands Papers GC/HA/10, Hall to Palmerston 21 Sept. 1855; Hansard clx, 25-27 Feb. 1856, 1389-90, 1429.

50. PP 1856 vii. pp.iii-iv, 1-10.

51. Hansard cxli. 10 Apr. 1856, 768-9; cxlii, 13 & 17 June 1856; 1138, 1141-6, 1569; Broadlands Papers, GC/HA/19, Hall to Palmerston 28 April 1856.

52. Works 1/50, p.380; /51, pp.59, 234-5; Works 2/15, p.386; Works 16/459; Works 34/825, /830. The bridge was designed by James Rendel with the assistance of Matthew Digby Wyatt, and replaced by the present concrete bridge

in 1956-7.

53. Cres 19/49, p.291; Cres 35/1963-4; BN 3 July 1863, p.309.; BN 13 March 1857, p.258.

54. See Chapter 6.

55. BN 14 March 1862, pp.174, 179.

56. Works 2/15, p.28; /25, p.349; Cres 35/2240; Weinreb & Hibbert, Encyclopaedia of London, p.353.

57. Works 1/84, p.68; Works 2/30, p.391; Works 16/437.

58. Cres 35/2566; MPEE 51.

59. A. Beresford Hope, Public Offices and Metropolitan Improvements (1857); A. Barry, Life of Barry, pp.267, 294-9; N. Bingham, "Victorian and Edwardian Whitehall: Architecture and Planning 1865-1918" (London Univ. Ph.D.thesis 1985).

60. Sheppard, pp.201-4.

61. Rep.Commrs.... [for] Plans for Embanking the Thames, PP 1861 xxxi, pp.126-30, and plan.

62. Rep.Sel.Cttee. on Thames Embankment Bill, PP 1862 xv [334], ix-x, 200-223; Hansard clxvii. 3 July 1862, 1473; Owen, Govt. of Victorian London, pp.78-9.

63. The houses at the southern end of Whitehall were finally demolished at the end of the decade.

64. PP 1867-8 lviii. [399], pp.1-3 and plans; 47th Rep.Comrs.Woods Forests, etc., PP 1868-9 xvii [288], pp.8-11.

65. BN 10 Nov. 1865, p.787; 15 Dec. 1865, p.885.

66. 1st Rep. Sel. Cttee. on Hungerford Bridge & Wellington Street viaduct PP 1868-9 x [200] pp.88-97, and

Appendix 2; Bingham, loc.cit. pp.82-6.

67. Kings Works vi. pp.379-393; R. R. Tighe & J. E. Davis, Annals of Windsor ii. (1858) p.643; W. Ames, Prince Albert and Victorian Taste (1967) pp.107-114; H. Hobhouse, Prince Albert: his Life and Work (1983) pp.119-122.

68. Works 19/30/4, ff.1-5; Cres 19/34, p.176; MR 442..

69. Tighe & Davis, pp. 652-5; PP 1850 xxx [554] pp. 20-1. Pennethorne prepared an unexecuted scheme for linking the Great Western Railway station to the Lower Ward of the castle by means of a footbridge: Works 34/251, 24 May 1848.

70. Cres 2/62; Works 11/30/2, ff.58-60; Tighe & Davis, p.655.

71. Ames, p.108; Gent. Mag. N.S. xxxvii, p.377, quoted in Tighe & Davis, p. 655.

72. T.S. Harwood, Windsor Old & New, (privately printed, 1929), p.128; A. Macnaghten, Windsor in Victorian Times,(Slough, 1975) p.12 and passim.

73. MPE 592; Cres 19/30, pp.51-2, 491.

74. T1/5816A/18965; Add MS 40481, f.181; Tighe & Davis, p. 647.

75. Cres 2/82; MPE 613; T1/5816A/18965; T25/21, p.549.

76. Builder, 1 Oct. 1870, p.781; 18 May 1901, p.494.

CHAPTER 4 (Footnotes on p.212)

PARKS FOR THE PEOPLE

The urban park in its present form is a creation of the 19th century. The vast growth of cities in the early 19th century barred many people from easy access to the countryside. It was generally believed that the lack of fresh, pure air and open space contributed to a deterioration in public health and to that restless anomie which characterised the poorer inhabitants of the central areas. This frame of mind could discourage self-improvement and, at worst, feed those disorderly impulses which threatened social stability and harmony. By encouraging "rational amusements" in discreetly supervised surroundings, parks could contribute to the creation of a balanced and orderly society. They could also, like well-planned streets, point the way towards the development of cities along aesthetically more pleasing lines, and so help further the aims of "metropolitan improvements".

Early-19th-century London did not lack public open spaces, but they were not situated in those parts of the city where they were needed most. The royal parks formed a wedge of greenery stretching from Bayswater and Kensington to the very heart of government in Whitehall, but the City, the East End, and the northern and southern suburbs were much less well supplied ([1]). The squares in

the smarter districts were not open to the general public. Private pleasure gardens, like the once-fashionable Vauxhall Gardens and the more plebian Eagle of nursery-rhyme fame in the City Road were disappearing under the rapid advance of housing. A witness to the Commons Select Committee on Public Walks in 1833 bemoaned the fact that "the little tea-gardens round about London, in my time, have all gone to decay for want of encouragement". Working-class youths and their girl-friends who had patronised them at weekends now had nowhere to go but the public houses. Commons and open grasslands and meadows were equally threatened. Moorfields, for long a favourite resort of City-dwellers, had been leased for building by the City Corporation ([2]). As more and more people found it difficult to walk out of London into the country for recreation, influential citizens began to call on the Government - the only authority with powers to frame plans for the whole of the metropolis - to set aside suburban areas for new parks.

The Government's initial involvement in the provision of metropolitan parks sprang not out of altruism, but from a wish to develop the Crown Estates on profitable and visually satisfying lines. The result was Regents Park, "the first English town park to be laid out entirely for public use" ([3]). Visually the park represented a new departure, with its irregularly shaped lake, winding walks and artfully positioned clumps of trees. Such features were familiar in the landscaped

grounds of country houses, but were unknown in an urban setting. The surrounding terraces served not only to provide an appropriately stately backdrop to the picturesque landscape, but also to bring in an income which would, it was hoped, increase over the years and help defray the cost of making the park. A similar policy was adopted in many 19th-century parks, both in London and the provinces.

Pennethorne had nothing to do with the formation of Regents Park, but he was closely involved in a subordinate capacity in the remodelling of St. James's Park. Starting in 1827, the park was landscaped by Nash along picturesque lines, its formal straight "canal" converted into the present irregular lake, and curving paths formed in place of the earlier straight lines ([4]). Pennethorne was involved in the formation of these walks, and it was through this project that he acquired his first experience of landscape design.

Regents Park and St. James's Park did relatively little to remedy the chronic and increasing lack of open space for the inhabitants of London's poorer areas. Interest in questions of public health and "environmental" issues increased in the aftermath of the 1832 Reform Act and the first visitation of cholera in the same year. In 1833, therefore, a Commons Select Committee was set up to investigate the provision of "public walks" in London and other larger towns. Its members, who included Lord Duncannon (First Commissioner

of Woods and Forests), and Lord Morpeth, a future First Commissioner, investigated the provision of open spaces in the capital, and recommended the opening of the whole of Regents Park to the public, and the acquisition of Primrose Hill to the north. New parks should be created to serve the inhabitants of the East End, and "open quays" provided on the banks of the Thames. These new open spaces would, it was hoped, help wean the poor from "low and debasing pleasures" like dog-fights and boxing matches. The committee concluded that public money should be used in furtherance of these aims, since "... it seems the duty of the Government to assist in providing for the Health of the People by whose efforts they are supported" ([5]) - an unusual admission of social responsibility on the part of central government.

PRIMROSE HILL

The first tangible result of the Select Committee's deliberations was the acquisition of Primrose Hill. An "open healthy spot which the humbler classes have been in the habit of visiting with their families in fine weather time out of mind", the hill commanded a view over Regents Park and the rest of London to the south. It belonged to Eton College, which was planning to develop its extensive north London estates for building, but early in 1841 the Treasury approved an arrangement under which the Crown would

exchange some of its property at Eton with the College, in return for the acquisition of the hill ([6]). Pennethorne had just taken up his post as co-architect for metropolitan improvements, and in August 1840 he prepared a plan of the ground showing a rudimentary layout of walks and plantations and, at the highest point of the hill, a level terrace, crowned by a gargantuan figure of a seated Britannia ([7]). This plan was not implemented, and after the ground was acquired under legislation passed in 1842 (5 & 6 Vict. c.78) it was allowed to remain in the relatively "unimproved" state which it still preserves today ([8]). Pennethorne later supervised the construction of a tunnel under the northern boundary road of Regents Park (now Prince Albert Road), linking the park with the Hill ([9]). The opening of the north-western part of the park to the public in 1841 completed the process of creating a large public open space to serve the inhabitants of north-west London ([10]).

VICTORIA PARK

The question of creating a new park for the poor of the East End remained dormant until 1838 when Joseph Hume, the Radical M.P. for Middlesex and a member of the 1836 Select Committee on Metropolitan Improvements, raised it in Parliament. The economy was now entering a recession, and political activity among the working class increasing. Hume, a disciple of

Francis Place and an energetic reformer, had been interested in the provision of parks for the poor since 1832 ([11]). His appeal for a park in the East End was reinforced by the publication of the first report of the Registrar General of Births Deaths and Marriages in 1839, which contained a statement by the statistician William Farr, that "... [a] good general system of Sewers, the intersection of the dense crowded districts of the Metropolis by a few spacious streets, and a park in the East End of London would probably diminish the annual deaths by several thousands, prevent many years of sickness, and add several years to the lives of the entire population. The poor classes would be benefited by these measures and the poor rates reduced, but all classes of the community are directly interested in their adoption, for the epidemics whether influenza or typhus, cholera, small pox, scarlatina or measles, which arise in the East End of the town, do not stay there, they travel to the West End" ([12]).

Hume now began a campaign to attract public support for his proposal, and in June 1840, with Chartism in the air, a public meeting was held in Limehouse and a petition circulated ([13]). The proposal was supported in Parliament by Lord Duncannon, and by Charles Blomfield, Bishop of London, and their advocacy no doubt helped persuade Melbourne's government to take it seriously ([14]). The Whigs had already taken the first steps towards implementing a coherent system of street

improvements in central London. The creation of a new park in the East End could be presented as a token of their concern to help eradicate some of the worst evils of modern urban life. Pennethorne, who had already prepared schemes for the new streets, was an obvious choice to investigate possible sites. His report, presented in April 1841, marked the first stage in the formation of what became Victoria Park, the first park specifically intended for the Poor in any capital city.

Pennethorne suggested two possible sites: one near Bow Common, and the other further north, at Bonners Fields, near the rapidly expanding artisan suburb of Bethnal Green. East London was expanding very rapidly, and the two sites offered the closest open space available for purchase at a reasonable price. Pennethorne's own preference was for the first site, because it could be easily reached by larger numbers of people. The acquisition of the land would involve the compulsory purchase of some factories and about 100 small cottages, but the social advantages would outweigh the high cost and the "trifling (if any) advantages derivable from the picturesque beauty of the other site" ([15]).

It was undoubtedly the cost which made the Commissioners of Woods and Forests ignore Pennethorne's advise and plump for the northern site (Plate 59a). Although it was further from the main centres of population there were no buildings to purchase. The land was completely flat, and had the rather down-at-heel

appearance characteristic of many areas on the edges of large towns, with gravel-diggings, brick pits, and impoverished hamlets clustering close by. Pennethorne proposed to form his park to the south of one such hamlet, known popularly as Botany Bay, on a boot-shaped site of 237 acres, in an angle formed by the Regents Canal and a cut (now called the Hertford Union Canal) which linked it to the River Lea. It was crossed by a lane (Grove Road) linking Hackney, soon to become a haven for lower-middle-class commuters, with the Mile End Road ([16]). On the western or London side of the Regents Canal stood a remnant of Bonner's Hall, the former manor-house of Stepney, a "curious old-fashioned structure of plaster and brickwork", named after the notorious 16th-century bishop who was said to have imprisoned and tortured Protestants there. Around it stretched a tract of meadow-land called Bonners Fields, over which the public claimed a right of access ([17]). Pennethorne proposed to create the park for £75,075, little more than half the cost of the southern site; he pointed out, though, that another £5,000 at least would need to be spent on providing better access roads, especially from the poor districts to the south. Before the surrounding ground could be let for housing, the Government would also need to spend money on providing roads and sewers ([18]).

In its dying days, the Whig administration of Lord Melbourne decided to pay for the park out of the

Land Revenues of the Crown. This tactic had been adopted in Regents Park, but had been abandoned, with unfortunate results, in the scheme for new streets prepared by Pennethorne in 1840. The money for Victoria Park came from a fortunate windfall: the sale of York House - now Lancaster House - which was now no longer needed by the royal family ([19]).

Pennethorne submitted his first plan for laying out the ground in June 1841 ([20]). Although signed jointly with Chawner, his letter to the Commissioners of Woods and Forests makes it clear that he was the guiding spirit. The design shows a rudimentary layout of trees in clumps, bounded by a drive around the perimeter, beyond which there are groups of houses in terraces "as in the Regent's Park" (Plate 59b). The design was intended "more as a means to bring certain points under the Consideration of the Board, than as a plan suggested to be acted upon". Pennethorne hoped to use the park to attract a wealthier class of resident to the area. He persuaded the Commissioners to turn down proposals for a private zoo, on the grounds that it would encourage "fireworks and evening assemblages". As at Regents Park, new houses would be built around the park to shut out "back neighbourhoods". Bonners Fields would be acquired for housing, and there would be a wide access road leading to the main entrance by the Regents Canal, thus opening the area up to the City and points further west ([21]).

A draft Bill for acquiring the land was prepared at the beginning of 1842, and became law in the summer, but plans to start work were delayed by claimants hoping to cash in on the improved value of their property ([22]). There were 12 freeholders, some of whom submitted wildly excessive claims. A brick-maker who owned 22 acres in the middle of the park demanded £19,000 and was not persuaded to accept a lower adjudication of £800 until late in 1844. By this time Pennethorne had reached agreement with the other freeholders, and work was able to start ([23]).

Hedges and trees were being cut down in December in preparation for laying out the ground, and in January 1845 Pennethorne submitted a revised plan of the approach roads ([24]). It was followed a month later by a plan for laying out the streets on the Bonners Fields site, and a design for a main entrance lodge and a bridge over the Regents Canal ([25]). The lodge was to form a focal point at the end of a wide approach road on the line of a former footpath leading north-east from Old Ford Road, the country lane which gave access to Bethnal Green. Pennethorne wanted the streets to be lined with smart terraces, and part of the ground laid out as an ornamental garden - an echo of fashionable Belgravia. At a later stage the approach road could be extended to the south west in the direction of the City across Bethnal Green ([26]). In this way the park could be made more accessible to potential users, and made to contribute to

the visual development of London as a whole.

The lodge and gate-piers were designed in the florid Jacobean manner which Pennethorne was currently recommending as a model for the development of New Oxford Street. The lodge, destroyed in the Second World War, was a substantial two-storied building of red-brick and stone dressings, entered through a semi-circular arched porch carried up to form a low tower which was capped by a parapet with strapwork ornament and obelisks (Plate 60a). Together with the heavy-looking gatepiers which still survive (Plate 60b), it was intended to allude to the early history of the site, and to provide a suitable introduction to the rural and picturesque scenes which would unfold within. More importantly, it gave an elevated aristocratic character to the park which distinguished it from a mere piece of common ground. Victoria Park was intended to improve the moral as well as the physical conditions of the poor, and the lodge played an important part in that ambitious if unattainable aim.

With the completion of the lodge and main approach road at the end of 1845, it became possible to plan the layout of the park itself. Pennethorne's general plan showing the proposed disposition of drives, paths and plantations was accepted by the Commissioners in the autumn with the sensible observation that "the proper direction for [the] paths will be found to be best ascertained by the Lines, which the Public work out for

themselves" ([27]). The detailed management of the planting was placed in the hands of a Mr. Curtis, who was recommended to the Commissioners by Sir William Hooker, director of Kew Gardens ([28]). The ground was thrown open to the public as work proceeded, and 25,000 people were said to have gone there on Good Friday 1846 ([29]).

The main modification to the layout approved in 1845 was the provision of a lake, to "suit the present forms and levels of ground, and to produce as much variety of scenery as may be obtained in the limited space without any great increase of cost" ([30]). The decision came about through popular pressure, and Pennethorne reminded the Commissioners of "... the good effect which rational amusements produce on the lower orders - and the ornamental water in St. James Park, Hyde Park and the Regents Park have been the source of such enjoyment to the Public as to induce a general feeling that ornamental water is almost an integral and indispensible part of a Royal Park". In 1842 he had produced a plan jointly with Joseph Paxton, the greatest park designer of the mid 19th century, for Prince's Park, Liverpool. This park was very similar in its general principles to Victoria Park, and contained an irregular lake in one angle ([31]). Now Pennethorne suggested making a 7-acre lake in the southern angle of Victoria Park, with islands formed out of the excavated ground to give an effect of Reptonian "intricacy". A plan submitted in May 1846 shows an irregularly shaped sheet of water with

three islands; a museum on the north bank was no doubt intended to contribute further to the "rational amusement" of the poor,but was never built ([32]). The Commissioners finally agreed to make the lake in October 1846, on a slightly smaller scale than Pennethorne had intended ([33]).

Pennethorne's final ideas on the layout of the park are incorporated in a plan approved by the Commissioners in October 1846 ([34]). This plan shows a balance between formality and irregularity (Plate 61). A broad carriage drive encircles the park, and a straight avenue leads north from the entrance gates bisecting it. The drives and avenues are liberally planted with trees and shrubs which now, in their maturity, convey a sense of grandeur and expansiveness (Plate 62a). To the north of the entrance is the lake, and beyond it a landscape crossed by winding paths and broken up with clumps of trees; a smaller lake is shown further north-east, surrounded by a thick belt of plantations. With minor alterations, this plan provides the basis of the layout of the park as we see it today.

The main lake was nearly complete, and filled with water, by the spring of 1847 (Plate 62b). The purchase, on Pennethorne's recommendation, of a Chinese pagoda of iron for the island (since destroyed) added to the charm of the landscape. In February 1849 Pennethorne formulated a design for a Chinese footbridge to lead to the island, but it was rejected in favour of a cheaper

one proposed by his subordinate, Curtis ([35]). The Commissioners gave their permission to form a second lake in mid 1847. It was eventually used for bathing, despite objections from Pennethorne that it would offend "respectable" visitors and reduce the value of the neighbouring property ([36]).

Like Nash, Pennethorne was not a plantsman. He left the important decisions about planting to Curtis, who turned out to be negligent and was dismissed in May 1849, after complaints from Pennethorne. Curtis's planting was criticised in 1851 by Edward Kemp, the gardener at Paxton's Birkenhead Park. In his view, everything had been done in "a most imperfect manner", the trees placed in rows, the ornamental shrubs crowding each other out, the paths going up and down with every irregularity of the surface, the grass not properly levelled, and the lake spoilt by its steep, perpendicular bank ([37]). Paxton himself thought that the planting had been done by "men who did not know the names of half-a-dozen kinds of trees they were planting" ([38]). Most of these imperfections were remedied by Curtis's successor as gardener, John Gibson, a Paxton pupil and protégé. He had been trained at Chatsworth and had gone to South Africa and India to collect orchids for the Duke of Devonshire in 1835-7 ([39]). He was given a relatively free hand, and was already remedying some of Curtis's mistakes when Kemp visited the park in 1851. He did not radically alter Pennethorne's layout, but he introduced

new flowers, flowering shrubs and exotic trees which undoubtedly improved the appearance of the park ([40]).

Pennethorne's final contribution was an attractive round-arched arcade built as a place of shelter in 1861, but subsequently destroyed ([41]). This exotic structure (Plate 63a) is Pennethorne's only essay in the engaging quasi-oriental manner which became fashionable in the mid 19th century, and reminds us of the extraordinary stylistic diversity of which he was capable. Like the splendid Gothic drinking fountain, given by Baronness Burdett-Coutts and designed by her architect R.A.Darbishire, it added an appropriate note of gaiety to a park which succeeded in bringing to the poor of east London some of the enjoyments formerly limited to the few.

Socially as well as aesthetically, Victoria Park was a great success. As a symbol of enlightened government action, it demonstrated to one contemporary commentator ".... that the rich and powerful no longer deem the poor beneath their contempt ... No nobler monument exists of the kindly disposition which now generally prevails, for ameliorating the condition of the operative classes; no surer antidote is found to the incendiary harangue, which would make the humble discontented with their governors, than Victoria Park" ([42]). In fact, the park later became the scene of "incendiary harangues" in the form of mass Trades Union meetings ([43]), but in general it contributed to the

softening of manners among the mass of the people which marked the century or so after 1850. Conceived in the troubled early 1840s, it is a monument to the greater social cohesion which prevailed in England in the post-Chartist period. Even today, despite later and not always sympathetic alterations, it remains a benign influence among the high-rise blocks and shabby streets of the East End.

Once the park was completed, Pennethorne's attention was directed to the developent of the building estate around the edge. He told the Commissioners of Woods and Forests in October 1846 that the area north of the park, towards Hackney, was assuming "a new and improved aspect", and that he hoped that the sites might be let in the following spring ([44]). His proposals for building around the park now seem absurdly optimistic; detached and semi-detached houses were to line both sides of a new road running parallel to the Hertford Union canal, and terraces built along the whole of the northern side of the park, with a crescent around the "toe" at the western end ([45]). He was obviously influenced by Regents Park, but there was never any likelihood that the rich would be persuaded to live so far from their accustomed haunts. The best hope lay in attracting the growing army of Samuel Pooters emerging from the offices of the City.

The letting of the sites, even to this much maligned class, depended on the construction of suitable access roads, and early in 1847 Pennethorne submitted

estimates to the Royal Commission for Metropolitan Improvements for the building of three such thoroughfares: one crossing Bethnal Green, another leading to the northern side of the park from Cambridge Heath Road, and a third running south to Mile End Road and Limehouse ([46]). The road on the north side of the park (now Victoria Park Road) was to be built with the help of the Sir John Cass trustees, who owned much of the land, and swept away the "wretched village of houses (or hovels more properly) formerly known as Botany Bay" in 1847 ([47]). The road to Limehouse was to be a broad tree-lined boulevard "... assuming so much the character of part of the park, that those who were unable to walk far enough actually to reach it, might still fancy themselves almost within its precincts as soon as they entered the road itself" ([48]) - an imaginative idea which would, if executed, have done much to mitigate the dingy character of the area south of the park.

The difficulty lay in finding the money. Pennethorne wanted the two shorter roads to be financed out of funds left over from forming the park and the third from the "Metropolitan Improvement Fund" used for the new streets elsewhere in London. In the event none of these funds showed any surplus. The new streets in central London had cost far more than originally intended, and another £15,000 was needed over and above the proceeds from the sale of York House to complete the park before any approach roads could be built. Even if

funds had been forthcoming, the rising cost of land meant that the roads would be much more expensive than originally envisaged ([49]). Notices for the approach roads were issued in November 1846, and again in 1848, but the Bill for purchasing the ground was never introduced. Victoria Park Road was constructed by the Cass trustees with financial aid from the government in 1850-1, but the southern road (called Burdett Road) was shelved until 1862, when the Metropolitan Board of Works built it in a mean and utilitarian manner which bore no relationship to Pennethorne's proposals ([50]). The road across Bethnal Green was never built at all.

The development of the building land dragged on throughout Pennethorne's life. After complaints in 1848 about the use of Bonners Fields for Sunday Chartist meetings, held by people with "irreligious or democratical principles", he recommended enclosing the ground and letting some of the sites for building ([51]). But with the building trade depressed, nothing was done until 1850, when a large site to the east of the approach road, originally intended for an ornamental garden, was leased as the site of the City of London Hospital for Diseases of the Chest. Here F.W.Ordish designed a neo-"Queen Anne" building, unusual for its time, in 1851 ([52]). The opening of Victoria Park Road in the same year at last made the northern side of the park available for "good Houses and Villas", but the architect to the Cass estate warned that "... public expectation as to the

approaches to the Park and letting of the Building Land is certainly falling - respectable men ... constantly express their opinion that the approaches will never be made, and that the land will never let" ([53]). Nevertheless, an Act was finally passed (14 & 15 Vict c.46) in mid 1851 setting aside 45 acres on which building would take place along the lines Pennethorne had envisaged in 1846 ([54]).

Pennethorne thought that it would be unwise to let the ground until land values had risen to the point where substantial middle-class houses could be contemplated. This point had, he believed, been reached by 1853. The area around Bonners Fields was beginning to be developed by the neighbouring landowners, while Hackney, to the north-west, was now accessible to City clerks by the building of the North London Railway ([55]). Only the northern and eastern extremities still abutted on open country. He therefore ordered the laying out of the roads in Bonners Fields and to the south of Victoria Park Road, and in February 1854 he sent in a series of detailed plans showing a division of all the building sites into 173 lots ([56]).

The response was very disappointing. Builders were deterred, according to Pennethorne, by the state of the money market and the availability of similar ground nearer London ([57]). Smaller houses for an artisan population would, no doubt, have been built more rapidly, but neither Pennethorne nor the Commissioners of Woods

and Forests thought that this was an appropriate way to develop part of the Crown Estate. The curving roads south of Victoria Park Road (Gore Road, Morpeth Road, etc.) were finally completed in 1858, but despite the granting of a few building leases in the former Bonners Fields the building sites were still only bringing in £200 a year by the middle of 1859, instead of the £6,000 Pennethorne had originally anticipated ([58]). Even by 1863 development was still distinctly patchy, but by then the park was finally achieving its effect of raising property prices in the area around, and one writer could draw attention to the "new town of villa residences [which] has sprung up where before there were open fields, waste land and miserable rookeries, tenanted by a squalid, criminal population" (Plate 63b) ([59]). Most of the remaining building plots were leased in the next few years ([60]). The ground on the north-eastern side, however, was not built up until well after Pennethorne's death, and his proposal to build a road parallel to the canal was fortunately abandoned in 1872 when an Act was passed incorporating the remaining building ground in the Park itself ([61]).

The houses which overlook the park and line the broad approach road are of the three-storied terraced type, with basements, popular with the better-off City clerks of the time (Plate 64). The builders were local men who sometimes obtained designs from architects like Messrs. Finch, Hill and Paraire, better known for their

music halls and public houses; the designs were all submitted to Pennethorne for approval, and when necessary, modification ([62]). Because of the reluctance of small-scale builders everywhere to engage on large-scale projects, the houses were built in small groups, and there is little architectural uniformity beyond that provided by the ubiquitous Italianate architectural vocabulary. They nevertheless provide an attractive example of the suburban architecture of the time.

KENNINGTON PARK

The creation of Victoria Park raised the expectations of the poorer inhabitants of the rest of London. As in the East End, the rapid spread of building was daily reducing the amount of accessible open space, and placing what remained under constant threat. Pennethorne and Chawner were asked to investigate possible sites for parks in other parts of London as early as the autumn of 1841. They suggested four sites north of the Thames, and six to the south ([63]).

The need for a park to serve the expanding areas south of the river seemed most urgent, and here the architects suggested making a park on 55 acres of ground which included Kennington Common, at the then edge of the built-up area, "... a dreary piece of waste land, covered partly with short grass, and frequented only by boys flying their kites or playing at marbles" ([64]). Plans to acquire the whole area foundered in 1842 because of the

extravagant claims for compensation made by the main landowners, the Dean and Chapter of Canterbury ([65]). The ground surrounding the Common was built on during the 1840s, and the Common itself played host to the final Chartist rally in 1848, attracting adverse comments on account of its "dirty unwholesome state", due in part to the presence of a vitriol works nearby ([66]). It was finally acquired by the Government and laid out as a park in 1852-3, after Pennethorne had made "detailed plans and schedules" for the site ([67]). None of his plans survive, and he was not responsible for the rather conventional scheme of planting which turned the common into a "pretty promenade ... intersected by broad and well-kept gravelled walks bordered with flower-beds", noteworthy only for the entrance lodge designed by Henry Roberts for Prince Albert as one of a pair of model cottages at the Great Exhibition of 1851 ([68]).

BATTERSEA PARK

Pennethorne played a much more significant role in the formation of the other government-sponsored park in South London, at Battersea Fields. The idea of making a park out of this low-lying tract of land on the banks of the Thames originated with the philanthropic impulses of the great builder Thomas Cubitt. In the early 1840s Cubitt was deeply engaged in the development of the Marquess of Westminster's estate on the opposite side of the river in Belgravia and Pimlico. Through this project he became interested in the idea of making an embankment and a new bridge (Chelsea Bridge) which would open up the area south of the river to building. In 1843 he put a proposal for a park to the Royal Commission on Metropolitan Improvements, which had taken over from the Commissioners of Woods and Forests some of the responsibility for framing and passing judgement on large-scale schemes of this kind ([69]). This proposal was warmly backed by the Hon. and Rev. Robert Eden, vicar of Battersea. He wrote to the Prime Minister, Sir Robert Peel, in November 1843, urging the immediate purchase of what he called "... a lung that is almost necessary to the health of the Neighbourhood" ([70]).

The ground formed part of the former common fields of Battersea (Plate 65a), still in the 1840s a rather isolated village grouped around its 18th-century church within a bend of the Thames. The fields had long

escaped enclosure, and parts were still subject to common grazing rights. Herds of cows were pastured there from September to November each year, but otherwise the land was used for growing hay, and for market gardening ([71]). To the west was the wooden Battersea Bridge, immortalised by Whistler, to the east a waterworks, and to the south the main line of the London and South Western Railway, opened in 1838. Small factories and workshops lined the river banks. There were no fewer than 364 separate parcels of land, most of them small strips known as "marshes" or "shots" ([72]). The proliferation of owners, together with the persistence of common rights and the difficulty of access from Central London, prevented large-scale development, and in the 1840s there were only a few dwellings there. But with the sale of the manor in 1835 pressure on the small freeholders to sell their land for housing began to increase.

Battersea Fields were already a place of popular resort by the 1840s, but they had acquired an unsavoury reputation which the promoters of the park wished to eradicate. Duels had long been fought there, one of them involving the Duke of Wellington, and on Sundays much of the area was given over to fairs which attracted large numbers of dubious characters, including "... costermongers and "roughs", and those prowling vagabonds who call themselves "gipsies". The weekday scenes here were bad enough, but on Sundays they were positively disgraceful, and to a great extent the police

were powerless, for the place was a sort of "no man's land", on which "ruffianism claimed to riot uncontrolled by any other authority than its own will" ([73]). By the bank of the river, close to the present Chelsea Bridge, there was an inn called the Red House - the "Red'us", mentioned by Dickens in Sketches by Boz. It served as a resort for pigeon shooters, and acted as "a second Vauxhall Gardens" for visitors who came by river in increasing numbers with the expansion of steamboat traffic in the 1840s. Rival beerhouses and tea gardens now sprang up to attract customers, some of whom bathed naked in the river. A writer in the London City Mission Magazine thought that "if there was a place out of hell that surpassed Sodom and Gomorrah in ungodliness and abomination, this was it". But according to the vicar of Battersea, "... many of these persons would become orderly if pains were taken to provide for them healthful recreation... By encouraging healthful recreations [like skating, cricket, archery and boating] the Commissioners [for Metropolitan Improvements] will promote social and domestic happiness; they will implant feelings which are now deadened by dirt, by drink, and by discomfort" ([74]).

The question of designing and funding the park was discussed by the Royal Commission on Metropolitan Improvements in 1845. Thomas Cubitt told the Commissioners that he could not form a park on the scale required as a private venture, since he would not be able to wait until the surrounding lands had brought in a

sufficient income to repay the costs. As in Victoria Park, government funds were needed. Even Charles Trevelyan, the Assistant Secretary to the Treasury, and a fervent advocate of economy, urged the government to buy the land. He walked across Battersea Fields daily from his home at Clapham, and concluded that "... it would not only be the most complete, but also, in the end, the most economical plan to buy the whole of the unoccupied portion of the Fields between the River and the Railroad and to lay out the portion bordering on the new Park in Villas with ornamental shrubberies and gardens so that the Park should be bounded only by the River and by detached buildings of a kind calculated to add to the general effect" ([75]). The vicar of Battersea had already prepared a plan for a 315-acre park, but the Commissioners did not trust his estimate of the cost, and Pennethorne, as their "professional adviser", was asked to prepare a detailed plan of his own under which a third of the ground would be used for houses. As at Victoria Park, the intention was to attract middle-class people to the building land, and so to defray some of the cost through rents. The building of Chelsea Bridge would help make the ground attractive to potential suburbanites who until then had shunned the south bank of the river.

Pennethorne's plan shows an ambitious layout of terraces and villas around a rectangular open space with a terrace along the river bank, a large lake in the centre and a grand public building on its northern shore,

close to the river (Plate 65b). The surrounding roads converge on rond-points by the new Chelsea Bridge, and by the site of Albert Bridge (not yet proposed) further west. The layout of streets and houses, had it been carried out, would have provided a visually attractive mixture of large and smaller houses, rather along the lines of the Ladbroke estate in north Kensington ([76]). Pennethorne told the Commissioners that, if the site were developed as he proposed, it would make a profit of about 10 per cent of the estimated outlay of £145,250. But before that could happen, Chelsea Bridge had to be built, and the promoters did not want to proceed until the embankment had been constructed. The Commissioners assumed - wrongly - that these obstacles would be easily overcome, and recommended the Government to go ahead on the basis of Pennethorne's scheme ([77]). Peel communicated the report to the Queen, and in October 1845 the government decided to introduce a Bill in the next session ([78]).

From the beginning the plans were thwarted by a lack of money. The Act passed in August 1846 for Battersea Park and Chelsea Bridge (9 & 10 Vict. c.38) authorised the Commissioners of Woods and Forests to borrow £200,000 for making the park, and £120,000 for the bridge ([79]). The original intention was to raise the money by selling Crown property on the foreshore at Birkenhead, but the plan came to nothing because the government refused to place further charges on the

Crown's land revenues, which were not subject to direct Parliamentary control ([80]). The Commissioners were therefore obliged to resort to loans, using the expected rents and bridge tolls as security ([81]). Rather than raising the loan on the open market - a tactic which had already proved all but impossible in the new streets - the Treasury told the Commissioners to apply to the Exchequer (or Public Works) Loan Commissioners. They managed a fund of some £360,000 designed to provide capital for public works undertaken by local authorities ([82]). Because of other demands on the fund, the Loan Commissioners felt obliged to lend the money only in small instalments; the purchase of the ground therefore took a very long time, during which the owners and occupiers of the land took the opportunity to increase their claims for compensation. The result of this delay was all but disastrous.

Pennethorne was asked to prepare detailed estimates of the value of the ground in September 1846, when the first instalment of £40,000 was requested ([83]). He reported that both freeholders and leaseholders were demanding twice what he had estimated in 1845; these claims, he later said, had been orchestrated by some of the larger property owners, including the parish surveyor. Since the decision to make the park was made public, some of the 55 freeholders had built houses on their land. Some of the leaseholders, had sub-let their property to builders, and the resulting houses were so

badly built that they were on the point of falling down. Others, like the owners of the Red House, were making extravagant claims for the loss of "goodwill" during the summer months when crowds flocked to the area. Claims for compensation in cases of compulsory purchase were always high, but those of the Battersea freeholders were "unprecedented", averaging £1,000 per acre, compared to less than £100 when the ground was sold by the lord of the manor in 1835, or the £450 which Pennethorne thought was reasonable ([84]). Decisions to add an extra 10 acres to the site for public baths, and to purchase the neighbouring wharves and vitriol works added to the estimated cost, which Pennethorne revised upwards to £265,933 in March 1847. He still believed, though, that the proposed housing would more than pay for the expense of forming the park, and would in the end yield a handsome profit ([85]).

It took seven years to obtain all the ground. The first disputed case was brought before a jury in December 1847, but soon after granting this first loan the Public Works Loan Commissioners announced that no more money was available, and in May 1848 Pennethorne had to cease buying the land ([86]). Some of the occupiers now started building houses again ([87]). In September 1848 Pennethorne finally obtained permission to raise outside loans on the security of the Crown's land revenues, and soon afterwards the Loan Commissioners resumed their payments ([88]).

Two years later, with a third of the ground still unpurchased, Russell's government tried to abandon the project completely before discovering that it had entered into so many agreements that it would be cheaper to go on ([89]). By 1851 the compulsory powers of the original Act were on the point of expiring, and a new Act was passed, extending the powers to 1853, at the same time placing the park under the management of the newly constituted Office of Works ([90]). A scheme by Joseph Paxton to move the Great Exhibition building to the site (Plate 66) came to nothing, and the great glass shed went to Norwood instead ([91]). The landowners who had held out now increased their claims for compensation in the knowledge that the compulsory powers would soon run out ([92]). By the beginning of 1853, it had become clear that with £197,671 spent out of the £200,000 permitted to be borrowed in 1846, no money would be available to form the park itself, or even to complete the remaining purchases ([93]). Work was therefore held up yet again.

The project was seized upon by Benjamin Disraeli, Chancellor of the Exchequor in Lord Derby's government, as an example of Whig profligacy ([94]). The Tories fell before they could sabotage it completely, and in February 1853, Thomas Cubitt offered to take the site over himself at cost price ([95]). His offer was turned down after Pennethorne made it clear that government would still be responsible for forming the roads and river embankment, from which it would get no financial

return ([96]). Sir William Molesworth, Chief Commissioner of Works in the new Aberdeen government, now pressed ahead to ensure that the park was completed as quickly as possible. With very little money in hand, and the extended compulsory powers about to elapse, he was forced to ask Parliament for extra funds out of general taxation to complete the remaining purchases, and to carry out the very large works needed to convert what was still a collection of desolate, marshy fields into an attractive landscape ([97]). Despite complaints from provincial M.P.s, the money was voted, and by the middle of 1854 all but one of the purchases had been completed ([98]). Work could now begin on forming the park itself ([99]).

Before any planting could take place, extensive earthworks were needed. Much of the ground was below river level, and two or three years' work were needed to raise the level so as to create the undulating surface necessary for a picturesque landscape. Even greater efforts were needed to build a terrace along the embankment (Plate 67a) and to construct the main roads leading south from the river ([100]). By June 1855, 20 barges were coming daily with spoil from excavations from the London Docks for the construction of Victoria Road (now Queenstown Road) which led south from Chelsea Bridge ([101]). Much of the earth was supplied free of charge by William Cubitt & Co., and transported by waggons on rails supplied by the contractors, Messrs. Kelk ([102]).

Pennethorne's original proposals for the roads

had to be drastically modified as the result of a successful application by the West End of London and Crystal Palace Railway Co. in 1853 for powers to build a terminus close to the southern end of Chelsea Bridge, with a wharf and pier adjoining ([103]). The line, which was extended in 1860 to Victoria Station, went through property which the government had purchased, and on which Pennethorne had proposed to build smart houses. Queenstown Road now had to be realigned parallel to the proposed railway line, and the idea of building the houses abandoned (Plate 67b). The remaining ground was incorporated within the park, which now became a little larger. Pennethorne also decided to leave out the villas which would have lined the southern edge of the park, and to plant trees along the eastern side to shield it from the railway. In this way, it became much more self-contained than Regents Park, or even Victoria Park,where views to the surrounding houses were an essential feature of the landscape.

With the main roads completed, Pennethorne could turn his attention to the design of the park itself. In April 1856 he told the new Chief Commissioner of Works, Sir Benjamin Hall, that work could start on making the lake, together with an esplanade along the river, a drive around the circumference of the park, and the plantations around the edge ([104]). The shape and position of the lake were modified after the discovery of a sand bank; it was finally made by the junction of two

ditches in the south-eastern corner of the park, and the paths were correspondingly realigned (Plate 68). The lake was filled at the end of 1856, and by the spring of 1857, after a lengthy and expensive programme of earth-moving, Pennethorne claimed that "... variety and undulation have been given to the surface; and the whole has been so divided and the vistas have been so arranged that when the plantations shall have grown the comparative lowness of the site will pass unnoticed from the higher ground by the river side" ([105]). When completed, the park would be a major asset for London: "... in a few years, after the plantations shall have been formed, there will probably not be a park near London presenting more attractions of Scenery or more sources for the enjoyment and recreation of the Public than Battersea Park - and the locality altogether, instead of being (as would have been the case) a hot bed of malaria, fever and crime, will be, as I firmly believe, a Suburb worthy in every respect of the West End of London" ([106]).

To supervise the detailed planting, Pennethorne called in John Gibson from Victoria Park. Gibson, he said, had "always shown himself anxious to carry out my original intentions", and possessed "such taste and knowledge as will enable him to carry out the Plan according to the instructions I shall give respecting the levels, the choice of Trees, &c. &c.".
Gibson visited nurseries at Liverpool and Chester to

choose the trees in October 1856, but two months later, with costs rising rapidly, the work was brought to a halt because of a decision by Sir Benjamin Hall to cut off the funds ([107]).

Hall began enquiring into the financing of Battersea Park soon after taking over from Molesworth, as part of a wide-ranging investigation into the management of the various metropolitan improvement schemes still being carried out by the Office of Works ([108]). He had told Pennethorne to finish the park by August 1857, and not on any account to exceed the money voted by Parliament ([109]). He now demanded a new and detailed account of how much money had been spent over and above the original estimate, and how much more would be needed ([110]). Pennethorne refused to accept responsibility for the overspending, which he blamed on delays over which he had no control. He told Hall that another £9,500 would enable the work to be completed, but it would have to be provided soon, while Cubitt's earth-moving machinery was still in place ([111]). Hall was not convinced by this plea for more money. Persuaded of Pennethorne's incorrigible extravagance and unreliability, he relieved him of further responsibility for the layout in July 1857, and told him to confine himself to completing the works specified in the original estimate ([112]). The completion of the park was entrusted to John Gibson, who now gave up his responsibilities at Victoria Park.

By 1857, twelve years had passed since the park

had first been conceived, and it still presented a very bleak impression to the visitor ([113]). Gibson reminded Hall that the disparity between the effort expended and the disappointing results was the result of having to move an "almost incredible quantity" of earth to the site, amounting to some three-quarters of a million cubic yards. An open sewer still had to be removed, the level of water in the lake raised,and extensive plantations made before the desolate effect could be removed ([114]). Despite Hall's blustering, these works, together with the building of the river wall, were eventually carried out with the aid of yet more money voted by Parliament. The funds were repaid in part by the sale of some of the land around the park, including the 21 acres to the east where the railway company was planning to build its station ([115]). Work continued well into the 1860s, with the more sympathetic backing of William Cowper, Hall's successor as Chief Commissioner, and as a result of Gibson's careful management, Pennethorne's park was finally transformed into a varied and picturesque landscape with an impressive avenue running east and west, an exotic "tropical garden", a grotto and profuse flower beds ([116]). Despite some unsympathetic later alterations, there is still a sense of scale, and of care in the management of vistas, which make it a worthy successor to the famous landscapes of the 18th century (Plate 69a).

As at Victoria Park, Pennethorne remained

involved in the management of the building estate until his retirement. The sale of the ground to the east of the park to the railway company left 83 acres, which he proposed to let to builders for villas, terraces and, nearer the railway, smaller houses. The success of the speculation depended partly on the removal of the proposed toll on Chelsea Bridge, then nearing completion; this would help attract both the prosperous middle-class clientele who were settling north of the river in Pimlico, and the workers for whom the park had been made in the first place. In the words of the Prime Minister, Lord Palmerston: "On one side of the river there was a park which had been formed for the recreation and benefit of the health of the people; on the other side were the people wandering about like shades on the banks of the Styx ... They and their wives and children were tantalised with the sight of a park which they could not reach" ([117]).

Pennethorne's hopes were not realised in his own lifetime, and only imperfectly afterwards. Some of the blame lies in the relative inaccessibility of the site - Battersea is a long way from the City - some on the actions of the railway companies, which in a few years turned the whole of the land at the eastern and south-eastern ends of the park into a skein of lines criss-crossing each other on viaducts. But even if the demand for houses had been there, the failure of the newly-formed Metropolitan Board of Works to construct

sewers under Battersea Park Road made it impossible to advertise the ground to builders for several years ([118]). In order to recoup some of the costs therefore, the remainder of the ground to the east of the park was sold off, some in 1863 to the Southwark and Vauxhall Water Company, and the rest in 1865 for the construction of a proposed "Metropolitan Western Docks" ([119]). Originally intended by Pennethorne to become part of a fashionable residential neighbourhood, this land was in time almost completely taken over by the Battersea Power Station, which now looms magnificently over the eastern part of the park (Plate 69b).

The building land to the south of the park did not attract any offers until early in 1864 when James Knowles, the architect of the new Grosvenor Hotel at Victoria and developer of the Park Town estate which was being formed to the south of the L.S.W.R. railway line, offered to buy it ([120]). His offer was turned down, but Pennethorne warned against offering the land on the open market: "The system of letting lands by Public Tender has frequently been tried and has always proved a failure: and the effect of the Competition in all the New Streets and in Victoria Park was to depreciate the value of the lands" ([121]). Cowper did not accept this advice, and in July Pennethorne produced a plan for advertising 57 acres on the south and west sides of the park ([122]). With the Metropolitan Board of Works due to begin its main sewer in 1865, the roads could be formed out of the proceeds of

the land sales ([123]). These expectations remained unrealised. Pennethorne died before the ground was let, and it was not until the 1890s that the sites around the edge of the park were covered with the "mansion" blocks of red-brick middle-class flats which still overlook the landscape he created ([124]).

ALBERT PARK

While Battersea Park was being created open spaces elsewhere around London's northern periphery were disappearing one by one. Nowhere was this more noticeable than in the drab expanses of the ancient parish of Islington. The loss of open spaces in this area prompted some inhabitants of the City and the densely-packed borough of Finsbury to circulate a petition in 1841 calling for the formation of a park ([125]). It was sent to the Commissioners of Woods and Forests, and forwarded to Chawner and Pennethorne, who suggested four possible sites, all of which were built over in the next few years ([126]).

The building of what became the North London Railway through the northern parts of Islington to Camden Town in 1850 opened up yet more land to the attention of the developers, and supporters of a North London park now concentrated their efforts on securing a site to the north of the line. A proposal for a park at Highbury had already been mooted by a local inhabitant, James LLoyd,

in 1844, and in 1845 T. E. Maslem of Tottenham prepared a plan for an "Albert Park" in the area (127). Lloyd revived his idea early in 1850, and publicised it by holding public meetings, and organising a petition which attracted the support of Lord Robert Grosvenor, an enthusiastic supporter of metropolitan improvements (128).

The proposed site consisted of over 500 acres of meadow land, stretching north from the railway line at Highbury and Canonbury to the present Finsbury Park, and the New River Company's reservoirs at Woodberry Down; to the east lay the expanding suburban villages of Stoke Newington and Newington Green, and to the west Holloway and the Seven Sisters Road. A series of plans was prepared by Lloyd's surveyor John Barnett in the autumn of 1850 showing different ways in which the ground could be apportioned between park and building sites (129). The land was bound to be expensive because of its potential for building, and from an early stage the promoters tried to enlist government help (130). After considerable discussion, Russell's First Commissioner, Lord Seymour, asked Pennethorne to inspect the site in August 1851 with a view to negotiating with the owners and occupiers of the land, some of whom had already started building houses. He recommended purchasing 467 acres, a third of which, as at Battersea, would be laid out in building sites. The Treasury finally agreed to apply for an Act of Parliament in November (131). It

only remained to find the money.

Pennethorne's role in the formulation of what was now being called "Albert Park" was not limited to surveying the site. In the autumn of 1851 he employed both Lloyd and his surveyor, John Barnett, in connection with the park, and was said to have "elaborated" earlier schemes for it ([132]). The result of his efforts was a large but unsigned plan (Plate 70) which, had it been carried out, would have given north London an open space as impressive as Regents Park. The plan bears some resemblance to an earlier scheme prepared by Barnett, and probably represents Pennethorne's reworking of his scheme ([133]). Compared with Victoria and Battersea Parks, which did not depart significantly from the Nash/Repton tradition, the 1851 plan shows the influence of formal garden design, already seen in the country-house gardens of Charles Barry and W. A. Nesfield. With his training in Rome, Pennethorne was naturally sympathetic to this new influence, and he was later to design elaborate (and equally abortive) formal gardens as part of his plan for developing the South Kensington estate. The combination of formality with the picturesque tradition is what gives the project its interest in the history of English park design.

"Albert Park" is one of the most tantalising of London's many abandoned planning schemes. It is shaped rather like Regents Park, but the narrow southern part north of the railway is made up of a long rectangular

stretch of water flanked by intricately designed gardens overlooked by terraces of houses and reached by a broad approach road. To the north the park broadens out into a large oval-shaped tract of ground landscaped with clumps of trees and large and sinewy lakes formed out of the meanderings of the New River. This part of the park is shown surrounded by substantial detached villas in their own gardens, like those in the original scheme for Battersea Park, or around Paxton's influential Birkenhead Park. A broad road sweeps around the perimeter.

Pennethorne estimated the cost of forming the park and realigning the roads at £430,000, much more than Victoria or Battersea Parks, and representing a net loss of £117,000 after the disposal of the building sites ([134]). In the climate of strict economy which prevailed at the time this alone was sufficient to doom the project. As so often, though, a change in government administered the final coup de grâce. No sooner had Lord Seymour asked the Treasury for permission to submit a Bill for acquiring the ground in February 1852, than Russell's government fell. Lord Derby, the next Prime Minister, decided to cut back the park by excluding the southern part of the site, where a speculative builder had already drawn up his own plans for building 500 middle-class villas in the area now known as Highbury New Park ([135]). Pennethorne now submitted a plan for a park on the reduced site, but the minority government, already embroiled against its will in Battersea Park, and fearful

of trying to persuade Parliament to vote money for a loss-making enterprise, decided to delay the introduction of the Bill. The government finally fell in December, a month after the Treasury decided to discharge claims and to pay Pennethorne's bills ([136]).

An attempt was made by James Lloyd and others to persuade the next government to revive the park, but Lord Aberdeen, the new Prime Minister and his economy-minded Chancellor, W.E. Gladstone, decided that they would do no more than make a grant in aid of locally-raised funds. The responsibility for designing the park was therefore returned to the park's original promoters, and Pennethorne was asked in July 1853 to report on a new scheme sent in by Lloyd and Barnett. He was sceptical about the likelihood of the funds being raised locally, and suggested the introduction of a "Metropolitan Improvement Rate" for works of this kind - a foretaste of the solution adopted when the Metropolitan Board of Works was formed two years later in 1855 ([137]). After further pressure from Lord Robert Grosvenor, the government agreed in December to grant £50,000 to supplement the £100,000 which the ratepayers of the Borough of Finsbury were expected to find, but as Pennethorne had anticipated, their enthusiasm for the park waned when they were asked to pay for it, and since the money was not raised the scheme was dropped ([138]).

It was revived again by the new Metropolitan Board of Works in 1857, only to founder once more after

Palmerston's government went back on its earlier undertaking to contribute £50,000 ([139]). When the Metropolitan Board of Works finally made up its mind to make a North London park in 1869, a much smaller site to the north-west of Seven Sisters Road was chosen, and named Finsbury Park out of deference to the origins of the project. It is a poor and paltry reflection of the original scheme. Meanwhile the rest of the original site was gradually built over with artisan and middle-class housing, now interspersed with high-rise flats. The only open space to survive is a tract to the east called Clissold Park, close to the former village of Stoke Newington, which was opened by the Metropolitan Board of Works in 1889 ([140]).

Pennethorne's achievements as a pioneer of the urban park have been largely overlooked or belittled by historians. In fact they were considerable. By adapting the grand royal parks to the needs of the London poor, he conferred a major social, as well as a visual, benefit on the capital. Visually, his parks are an urbanised version of the great country-house parks of the 18th century, with lakes, carriage drives, and carefully managed surprises. They were intended to elevate the poor by giving them some of the benefits formerly confined to the rich - an admirable idea. As a park designer, it is true, Pennethorne was less bold than Nash and less sensitive to planting than Paxton. But, as in

his street designs, he had to work within tight constraints. His parks still enhance the lives of south Londoners and East Enders, and their successful completion set a valuable example for town planners throughout England and abroad ([141]). Of all his achievements, they have surely done the most unadulterated good.

1. G. F. Chadwick, The Park and the Town (1966), pp.37, etc.
2. Rep. Sel. Cttee. on Public Walks, PP 1833 xv. [448], pp.5, 20, 28.
3. Chadwick, pp.30-32. The public was not fully admitted until 1841; see A. Saunders, Regents Park, passim.
4. Chadwick, p.33; 6th Rep. Comrs. of Woods, Forests, etc. PP 1829, xiv, p.162.
5. PP 1833 xv, pp.6-10.
6. D. Olsen, The Growth of Victorian London, pp.249-251; PP 1833 xv, p.6.; T25/18, pp.125, 318; Works 6/180.
7. MPE 1608
8. MR 55. Pennethorne is credited with the layout of the ground in Mechanics' Mag. xxvi. (1871), p.285..
9. Cres 19/27, p.233, 11 July 1842.
10. Chadwick, pp.97, 111; 19th Rep. Comrs. of Woods,

Forests, etc. PP 1842 [573] xxv. p.9.

11. Chadwick, p.51; A. Fein, "Victoria Park: its Origins and History", East London Papers v. (1962), p.74; Builder 30 April 1853, p.278.

12. Quoted in Works 6/99, p.54.

13. G. F. Poulsen, Victoria Park (1976), pp. 17-20; BN 16 Oct. 1857, p.1083; Chadwick, p.112.

14. Hansard lvii, 26 April, 1841, 1068.

15. Works 6/99, pp.58-68.

16. ibid., plan facing p.52; MPE 837; Poulsen, p.31.

17. Walford, Old and New London, v. p.508.

18. Works 6/99, p.73-4.

19. ibid. p.115.

20. G.L.R.O., Victoria Park Papers (VPP), vol.1; MR 55; 18th Rep. Comrs. of Woods, Forests, etc. PP 1841 [426], xii., Appendix 20.

21. VPP, vol.1; Works 6/99, pp.112-6.

22. VPP vol.1., 13 Jan. and 25 May 1842; Times 15 Feb. 1842, p.6., col.5.

23. VPP, vol.1., 17 May and 3 Oct. 1844; Times 17 Aug.1844, p.4.col.5..

24. Cres 19/31, pp.37-8; VPP, vol.2, 16 Jan 1845; VPP plans nos. 15, 19

25. VPP vol.2, 14 Feb. 1845 and plan no.31; Cres 19/31, pp.118-9.

26. LRRO 1/2037/3, 6 March 1845.

27. VPP vol.2, 27 June 1845; LRRO 1/2036/5, 27 Oct. 1845; Cres 19/32, pp.100-2.

28. VPP vol.2, 10 Oct. 1845; T25/19, p.302.

29. Times 14 April 1846, p.5, col.1.

30. VPP vol.2, 18 May 1846.

31. G. F. Chadwick, Sir Joseph Paxton p.47. Pennethorne played no part in the subsequent layout or execution of the park. The plan is in the Liverpool Record Office.

32. LRRO 1/2036/1 .

33. Cres 19/33, p.189.

34. VPP plans, no.3., 26 Oct. 1846.

35. VPP, vol. 3, 2 Feb. 1849; LRRO 1/2046; Cres 19/35, p.435.

36. Cres 19/34, pp.144-5; ILN x, 10 April 1847, p.227.

37. E. Kemp, The Parks, Gardens, etc. of London and its Suburbs, (1851), p.17.

38. Hansard cxlii, 16 June 1856, 1563.

39. Chadwick, Paxton,p.23; Chadwick, Park and Town, p.115.

40. A plan signed by Gibson and dated 1856 survives in VPP plans, no.5. See also Walford, Old and New London, v. pp.508-9.

41. Works 1/68, p.273. Pennethorne's drawing is in VPP plans, no.14. The arcade survived the Second World War, but later fell into disrepair.

42. W. Gaspey, Tallis's Illustrated London (1851) ii., p.254.

43. Poulsen, pp.92-103.

44. VPP, vol.2, 3 Oct. 1846.

45. LRRO 1/2036/11.

46. VPP vol.2., 31 Oct. 1846; plans, no 20.

47. Builder, 9 Jan 1847, p.11.

48. VPP plans, no.21; BN 16 Oct. 1857, p.1084.

49. T1/5201/22315.

50. VPP, vol.2, 18 Nov.1846; Works 6/180, p.49; BN 16 Oct. 1857, p.1084; M. Rose, The East End of London (1951), p.238.

51. VPP, vol.3, 30 June 1848.

52. ILN 26 June 1851, p.621.

53. Quoted in Fein, loc.cit., pp.86-7.

54. T1/5906A/14661; MR 55/8. There was a minor modification in the "toe" of the park, where the building of Victoria Park Road led to the abandonment of the crescent proposed in 1846.

55. Collins Illustrated Atlas of London (1854), pls. 20-21.

56. Cres 19/40, pp.258-60; /41, pp. 88-9, 258-9; /42, pp.20, 58-60; /43, p.26; LRRO 1/2043; /2115, Nov. 1854; T1/5806A /14661.

57. Cres 19/46, p.130, 17 June 1857.

58. Cres 19/46, p.399; /48, p.51.

59. LRRO 1/2199; VPP, plans, no.17; G. R. Emerson, London: How the Great City Grew (1862), p.272.

60. T25/25, /26, passim.

61. J. J. Sexby, The Municipal Parks, Gardens and Open Spaces of London (1898), pp.554, 560-1.

62. T25/23, p.323. Some of the original drawings

survive, e.g. LRRO 1/2128, /2142.

63. Works 6/99, pp.151-7, 160-5.

64. Walford, op.cit., vi. p.334.

65. Greater London Record Office, Kennington Park papers.

66. Works 2/10, p.531.

67. ibid. pp.139-141; RIBA Trans. 1856-7, p.10.

68. Walford,op.cit. vi p.338. A plan by T. A. Dash, described as a surveyor to the Office of Works, survives in the Kennington Park papers in the Greater London Record Office.

69. 5th Rep.Commrs.for Met. Improvements, PP 1846 xxiv., p.3

70. Works 6/102, p.142.

71. PP 1846 xxiv., p.10.

72. MR 88; Works 32/660.

73. Walford, op.cit. vi. p.476.

74. Works 6/102, ;.295; Sexby, op.cit. p.10; PP 1846 xxiv, pp.10-11.

75. Works 6/103, pp.85-6; PP 1846, xxiv., pp.10, 12-18.

76. An earlier version of the plan is in Works 32/671.

77. PP 1846 xxiv., pp.4-6, 19-20.

78. Greater London Record Office, Battersea Park Papers (BPP), vol.1., 3 Oct. 1845.

79. PP 1856, lii [193], p.14.

80. Hansard cxviii. 16 July 1851, 851; PP 1857 (2) xli. [251], p.2.

81. Hansard cxxix 5 Aug. 1853, 1409.

82. R. Blake, Disraeli (1969 ed.), p.340.

83. T1/5194/20814, 9 Sept. 1846; Cres 19/33, p.167.

84. BPP,vol.1, 22 Feb. and 13 March 1847; Works 32/667.

85. ibid. 22 March 1847. The estimated return was £322,189, based on a 25-year purchase of the expected ground-rents.

86. Hansard xcv 6 Dec. 1847, 697-8.
T1/5398/21532; T25/19, pp.439-40; BPP vol.4., 15 May 1847.

87. BPP vol.4., 29 Aug.1848, etc.

88. ibid. 6 Sept., 9 Sept. and 13 Oct.; Cres 19/36, p.87, etc.; 26th Rep. Comrs. of Woods, Forests, etc. PP 1849 [611] xxvii., p.16; PP 1856 liii.[193], p.14.

89. Hansard cxxxiv, 7 July 1854, c.1402.

90. PP 1856 liii.[193] p.14. Victoria Park, still a royal park, remained under the control of the Office of Woods.

91. BPP vol.1., 9 Aug.1851; Works 32/3; Getting London in Perspective pp.68-9.

92. BPP, vol.2., 26 Feb. 1856.

93. Works 32/668; PP 1856 liii. p.15.

94. Blake Disraeli, p.340.

95. Hobhouse, Cubitt, p.439-441. The letter is printed in PP 1852-3, ci.[179].

96. Works 2/10, pp.706-10; Hansard cxxix. 5 Aug 1853, 1407-1411.

97. Works 1/42, pp.60-62.

98. PP 1856 liii. [193] p.15.; Hansard cxxxiv. 7 July

1854, 1396.

99. Works 1/43, pp.163-5; BPP, vol 2. 29 March 1854. The project was managed on the spot by Arthur Cates, one of Pennethorne's assistants.

100. BPP vol.2. 19 June 1854, 11 April 1855.

101. BPP vol.2., 11 April, 1 May,20 June 1855.

102. Works 1/45, p.682; /50, p.392; BPP vol.2., 23 June 1856.

103. C. Dendy Marshall, History of the Southern Railway (1963), p.211; H. P.White, London Railway History (Newton Abbot, 1971), p.31; Works 2/16, pp.400-414.

104. PP 1856 lii. p.17; PP 1857 (2) xli. [130], p.12.

105. PP 1857 (2) xli [130] p.12, and plan facing p.16; Works 1/52, p.348.

106. PP 1857 (2) xli [130] p.20.

107. BPP vol.2. 2 Sept., 13 Oct. 1856; PP 1857 (2) xli. [130], p.12.

108. See Chapter 5.

109. Works 1/50, p.381, PP 1856 lii. p.17; Hansard cxlii. 5 June 1856, 1035-7.

110. Works 1/53, p.182.

111. PP 1857 (2) xli.[130], pp.2-3, 11-20.

112. Works 1/55, pp.43, 62.

113. ILN, 10 Apr. 1858, p.356.

114. BPP, vol 2, 16 July 1857.

115. PP 1857 (2) xli [251] p.11; T26/2, pp.57, 83-4, 21 July 1857.

116. Works 32/672; Hansard clxxxviii, 18 July 1867,

1693-4; Walford, op.cit. vi. pp.480, etc; Sexby, op.cit., pp.14-15; A. Amherst, London Parks and Gardens (1907), p.158.

117. Rep. Sel. Cttee. on new Chelsea Bridge Bill, PP 1857 (2) ix [250]. pp.1-6; Hansard cl, 11 June 1858, 1995.

118. Works 2/26, pp.286-7.

119. Works 1/74, p.41; /78, p.296; Works 2/27, pp.141, 248; /28, pp.182-3; Works 32/669, /673.

120. Cherry & Pevsner, The Buildings of England: London 2 South (Harmondsworth 1983), p.676; Works 1/76, pp.5, 187.

121. Works 16/22/6, f.1. 10 May 1864.

122. ibid. f.4; Works 2/28. p.261.

123. Works 2/28, pp.349-50; Works 1/80, p.92.

124. Works 1/86, p.354; /87, p.130; Works 2/33, p.360; Cherry & Pevsner, pp.676-7.

125. Works 16/34/4, f.1.

126. They included Copenhagen Fields, later the site of the Metropolitan Cattle Market: Works 6/99, pp.154-6.

127. White, London Railway History, pp.74-5; Works 16/34/4/,f.121.; Works 6/103, p.87.

128. Builder 30 March 1850, p.148; Works 16/34/4, f.24.

129. Works 32/1.

130. Works 16/34/4, f.33.

131. ibid. ff.38-40, 44-5.

132. ibid. ff.121-4.

133. Works 32/1/5; Works 32/424.

134. Works 16/34/4, ff.102-3.

135. ibid, ff.36,61; PP 1854, lxvii [409] p.4; London Journal vii, 1981, pp.29-32.

136. Works 16/34/4, ff.109-10, 140-1; Works 1/39, p.268.

137. Works 16/34/4, f.122, 150-1; PP 1854 lxvii, pp.5-6.

138. ibid., ff.156-162; Builder 17 Dec. 1853, p.762; Hansard, , cxxxiv, 7 July 1854, 1394-6.

139. BN 12 June, 3 July 1857, pp.618, 699; 2nd Rep. on Hungerford Bridge, etc. PP 1868-9 x [387], p.27.

140. Weinreb & Hibbert, London Encyclopedia, p.184.

141. A. Fein, "The American City: the Ideal and the Real", in E. Kaufmann (ed.), The Rise of an American Architecture (1970), p.84.

 (Footnotes on p.259)

Chapter 5

PENNETHORNE AND THE OFFICE OF WORKS

For the first four years of his employment as a government architect, Pennethorne was involved entirely on works connected with metropolitan improvements and the Crown Estate. There was no question of his being asked to undertake wider responsibilities, or to design public buildings. One of the purposes behind the reform of the Office of Works in 1832 had been to do away with the old system of "attached architects", with its overtones of patronage and even corruption. Competition was the order to the day. Pennethorne's tasks were limited and clearly defined.

This state of affairs had changed by the mid 1840s. Pennethorne was now firmly established in the Office of Woods and Forests with an office in no. 7, Whitehall Yard (Plate 56a), close to the department's headquarters in Whitehall Place, and virtually under the shadow of Inigo Jones's Banqueting House ([1]). The Tories had replaced the Whigs, and had effectively abandoned competitions in favour of the older system of informal patronage in the selection of architects for public buildings ([2]). Pennethorne had finished the

time-consuming surveying work conected with the new streets and Victoria Park. He was still working for the government on the improvement schemes recommended by the Royal Commissioners on Metropolitan Improvements, and as surveyor to the Crown Estate. But these were not full-time occupations. Rather than dispense with his services Sir Robert Peel's First Commissioner, Lord Lincoln, began to employ him on tasks whch went beyond the original terms of his employment. At the end of 1843 he was sent to Ireland for two months to investigate the construction of the new workhouses built there in the wake of the passing of the new Poor Law ([3]). In the following year he was asked to prepare plans for an addition to the National Gallery in Trafalgar Square, which remained unexecuted. Soon afterwards, he was given the commission for his first complete public building, a new Museum of Economic Geology in Piccadilly finally built in 1847-51 ([4]).

These commissions represented a very considerable improvement in Pennethorne's status in the Office. They coincided with an announcement by his 70-year-old partner, Thomas Chawner, that he would retire in 1845. When this happened, the Commissioners of Woods and Forests decided not to appoint anyone in his place. Pennethorne now became the sole architect of any real status in the Office, and agreed to relinquish what remained of his private practice in return for pension rights of the type that Chawner and other high-ranking

civil servants enjoyed ([5]).

Pennethorne seems to have believed that his changed status would give him something of the dignity of the pre-1832 "attached architect", and that he would be rewarded for the relinquishment of his exiguous private practice by being asked to design government buildings in perpetuum. In his view, the purpose behind the change was to "keep the work as much as possible in the Office" ([6]). There were obvious advantages in employing the man on the spot instead of outsiders like Charles Barry, Decimus Burton or Edward Blore - the most widely employed government architects in the early 1840s. Time could be saved and costs kept under stricter surveillance - an important consideration in view of the vast and increasing expense of the new Houses of Parliament. It later transpired, though, that the main party to the agreement was a subordinate officer, T. W. Philipps, the First Commissioner's secretary, and godfather to one of Pennethorne's children. Neither Lord Lincoln nor the Treasury was officially involved. Philipps must have seen Pennethorne's regular employment as a means of simplifying office business, and avoiding dealing with prickly and abrasive architects from outside. Nothing was written down, and when Pennethorne's position came under official investigation fifteen years later it was soon made clear that his compensation for giving up his private practice was his pension, and not the promise of

employment on government buildings. Such a promise would have run directly counter to the spirit of the Office reorganisation of 1832 ([7]). Pennethorne's position as government architect was in fact only secure so long as he satisfied the First Commissioner of Works. Commissioners came and went, and for the rest of his career Pennethorne was dependant not only on their views, but also on the political pressures to which they were subject.

Despite the weaknesses in his position, Pennethorne was looked upon for more than ten years as "... the general advisor of the Department [of Woods and Forests] on matters relating to public works" ([8]). In this respect he filled a real gap. The Office employed a salaried Surveyor of Works and Buildings, Henry Seward, who with the Assistant Surveyor for London, John Phipps, made estimates and carried out routine work on government buildings and on the royal palaces ([9]). But with demands for accommodation increasing, there was much to be said for employing an experienced man to give a synoptic view of the whole question of metropolitan improvements and public buildings, to report on how plans and schemes related to each other, on where accommodation could be found, and on how much new buildings might be expected to cost. It was through making reports of this kind, many of them verbal and informal, that Pennethorne got drawn into designing many of his buildings.

From 1844 onwards Pennethorne's practice was a mixed one, made up of surveying and what we would today call town-planning and landscape design, as well as designing buildings. There was nothing unusual in this. The "art architect" concerned only with design was only beginning to emerge in the 1840s, and always remained a minority figure in the Victorian architectural profession ([10]). The profession of town planner was unknown, and that of quantity surveyor still in its infancy ([11]). Over the 15 years from 1844 to 1859, Pennethorne derived only about a third (34.7 per cent) of his total income from commissions for buildings, the rest coming from surveying on the Crown Estate (25.1 per cent), street improvements (18.9 per cent), parks (14.7 per cent) and other surveys (6.4 per cent) ([12]). In this sense he continued a tradition that stretched well back into the 18th century.

Pennethorne's decision to work full-time for the government assured him of a steady income. From 1844 to 1858 he received an average of £3802 a year in professional fees. Despite the need to deduct the rent of his office and the salaries of his assistants, this was a very respectable upper-middle-class income which enabled him to live in comfort with his growing family at Elms Court, a substantial detached building at Highgate whose site now forms part of Waterlow Park ([13]). But there was a price to pay. Pennethorne's office routine was time-consuming and, from a creative

and artistic point of view, often stiflingly tedious.. He was "... expected to be always at hand ... People connected with Crown property in London are constantly making applications to me, and I can only charge on subjects reported" ([14]). For much of the 1840s, when his rivals were designing major buildings, he was still preoccupied for much of his time with the demands of evicted tradesmen in the lines of new streets, the questions of countless Parliamentary Select Committees, and the valuing of Crown property. Official reports had to be written on all the tasks on which he was employed. By the time his first large public buildings were designed, a new generation of architects with very different artistic ideals was ready to challenge him.

Little is known about how Pennethorne ran his practice. He was assisted by 5 or 6 clerks, most of whom remained with him for a long time ([15]). The clerks helped in the preparation of the countless detailed working drawings which were increasingly required by builders and surveyors, and one of them, Arthur Cates, eventually succeeded him as architect to the Crown Estate in London. Unlike many architects, Pennethorne had only one articled pupil, John Robinson, a Royal Academy gold medalist and travelling student, who became his chief architectural assistant after returning from Italy in the mid 1850s ([16]).

As a government employee, Pennethorne had a rather isolated position within the architectural

profession. According to Cates, he was "... [a] man of retired and studious habits, engrossed in the duties of his office,and mixing but little with society", ([17]). He was elected a fellow of the newly-founded RIBA in 1840 but rarely attended its meetings ([18]). He did not engage in polemical writing, and it is impossible to infer his views on the great architectural controversies of the day from his voluminous and discreetly worded reports. No diaries survive, and there are no other indications of the sources of his artistic creativity, apart from what can be inferred from his buildings, plans and superbly executed perspective drawings. More than most architects, Pennethorne remains an enigma.

Pennethorne's first commissions for government buildings were intended to solve the dearth of museum accommodation in London. After the fall of the Peel administration in 1846 the scope of his activities widened. Russell's First Commissioner, Lord Morpeth, faced pressing demands for new public buildings, above all for a new Record Office to house the nation's archives. Like his predecessor, Lord Lincoln, he fought shy of holding competitions or bringing in outside architects, and turned to Pennethorne, who submitted a scheme for a massive Gothic building on the Rolls Estate in Chancery Lane early in 1847. After severe cuts, work began in 1851 and continued on and off for the rest of Pennethorne's life ([19]). Morpeth also gave Pennethorne his first

commission for government offices: an extension to the Ordnance Office in Pall Mall, built in 1850-1, and a western extension to Somerset House for the new Inland Revenue department, work on which did not start until 1852 ([20]). A less ambitious commission was the remodelling of Soane's Insolvent Debtors' Court on the south side of Lincoln's Inn Fields, for which he produced designs in 1847 ([21]).

The cuts and delays which dogged all these projects were caused by financial difficulties. At the end of the 1840s, the economy entered into a depression, and Russell's government found it increasingly difficult to balance the budget. Public works suffered immediately. The London street improvement programme ground to a halt, and in 1848, with the Chancellor of the Exchequer, Charles Wood, threatening to increase the newly-imposed income tax, Parliament limited the annual vote for ordinary repair and maintenance works on public buildings to £100,000, two thirds of its level for the previous year ([22]). Encouraged by Radicals like Joseph Hume, Select Committees were established to examine two of the main responsibilities of the Woods and Forests: the management of the Crown Estates, and Miscellaneous Expenditure - the heading under which the ordinary expenses of the works department were included. The Miscellaneous Expenditure Committee recommended "narrow and constant examination of details" and "the strictest inquiry ... made into the cost of all works before their

commencement". "Ornamental edifices and gardens" were not to be undertaken except in prosperous periods, and estimates for buildings were to be presented to Parliament not in toto but item by item. This new system came into force in 1849 ([23]). The other committee drew attention to the "very heavy, multifarious and complex duties which have been thrown, of late years, more especially on the Woods Department" ([24]), but noticed "considerable irregularity" in the keeping of office accounts, despite an increase in staff. The need for reform was clearly indicated.

The main result of these inquiries was to convince Russell and his Cabinet of the need to separate the Works department from the Woods and Forests. Neither Morpeth nor his predecessor Lincoln thought that the existing system worked well ([25]). There was an inbuilt paradox in the union of a spending department with one which was primarily concerned with managing the revenues of the Crown Estates. In periods of financial stringency, it was only too easy to transfer money from one section to the other, making Parliamentary supervision very difficult; Pennethorne's Geological Museum, for instance, was financed out of the Crown's Land Revenues, and Parliament was only consulted when the building was well under way. Charles Gore, the Third Commissioner, admitted in 1849 that such "extraordinary payments" had increased threefold in the previous four years ([26]). Russell introduced a Bill to

separate the Woods and Works in February 1850, and after some revision it was passed in the summer of 1851 ([27]).

The main aim of the new legislation was "to bring the expenses incurred in public works more specifically under the notice of Parliament, and to secure a better management of accounts". The Office of Woods and Forests now became a purely revenue department, spending no more money than was necessary to improve the Crown Estates. It came under the aegis of the former Second and Third Commissioners, C. A. Gore, who managed the London estate, and T. F. Kennedy, who looked after the other lands. Both were civil servants and not politicians; the department was to represented in Parliament by Treasury spokesmen. As a result of a Parliamentary motion, the revenues were placed straight into the Exchequer and the expenditure made the subject of an annual parliamentary grant, thus increasing accountability ([28]). The department was represented in Parliament by Treasury spokesmen.

All other spending activities, including the remaining Metropolitan Improvements and the maintenance of the royal parks, came under the new Office of Works. It was headed by a Chief Commissioner, a politician, who would answer Parliamentary questions and "... exercise a control over public works which have of late years occasioned very considerable expense". Since it would no longer be possible for works to be financed out of the Land Revenues, all large proposals for spending

would now have to come under the scrutiny of Parliament, as had been intended in 1832 ([29]). The Office would still come under the supervision of the Treasury, but the concentration of responsibility under a single head would give it something of the character of a modern ministry ([30]).

Victorian Chief Commissioners wre chosen more for their political usefulness than for any aesthetic insights they might be able to bring to the Office of Works. Lord Morpeth stepped down as First Commissioner of the old combined department soon after succeeding his father as earl of Carlisle in April 1850. He was replaced by another Whig nobleman, Lord Seymour, heir to the dukedom of Somerset. He shared Russell's determination to push economy "to the uttermost limits" ([31]). He became Chief Commissioner of the new Works department, and retained office until the fall of the Russell government in February 1852. He was succeeded by the 33-year-old Lord John Manners, a former member of the "young England" group. Described by some as "the Philip Sydney of our generation", Manners confessed soon after accepting office that he was "entirely ignorant of the very first principles of Art", and relied heavily on the advice of his political mentor, Disraeli,the new Chancellor of the Exchequer, and of Prince Albert ([32]). He left office in December 1852 with the fall of Lord Derby's minority Tory government, and in his place the new Prime Minister, Lord Aberdeen - a connoisseur of

Grecian art - appointed a scholarly free-thinking Radical politician, Sir William Molesworth. Molesworth had come under the influence of James Mill as a young man, had owned the Westminster Review, and had edited the works of Hobbes. He was a man of some artistic sensibility, and had designed alterations to his country house, Pencarrow (Cornwall) in the 1830s, but he saw his appointment as a stepping stone to higher things rather than an end in itself. The appointment, he said, was "not a very important or highly paid one... but accompanied by a seat in the Cabinet it is one of much dignity bringing me into frequent contact with the Queen... and in all probability will eventually lead to one of the higher offices in the Government of our country" ([33]) - a prediction which was realised when he became Colonial Secretary in 1855, only to die a few months later.

After reorganisation, the Office of Woods and Forests remained in its old premises at no. 1-2 Whitehall Place, which were remodelled and extended by Pennethorne in 1856 and 1860 ([34]). The Office of Works moved to another early-19th-century terraced house, on the opposite side of the street, no. 12 Whitehall Place; in 1854 it expanded into the adjacent house, no. 13, because of overcrowding ([35]). The staff of the old combined office was divided between the two new departments. The new Office of Works retained T.W. Philipps as Secretary in charge of the "general branch".

He was assisted by two clerks, William Adams and John Thornborrow. The "professional branch" was headed, as before, by Inman, with Phipps and his assistant James Williams taking responsibility for the maintenance and repair of buildings in London ([36]). The total staff numbered 39 in 1853 ([37]).

Pennethorne's official standing after 1851 was ambiguous. He retained his surveyorship to the Crown Estate in London under the Woods and Forests, but his only official foothold in the Office of Works derived from his responsibility for the now largely completed Metropolitan Improvements, and he lost his official title of "attached architect and surveyor" with its £100 retainer ([38]). Although clerks and office staff came within the patronage of the Treasury, the appointment of architects remained the prerogative of the Chief Commissioner of Works, subject to the approval of the Treasury ([39]). Sir William Molesworth told the Treasury in August 1853 that Pennethorne was "largely consulted" by him on the provision of government offices, but that he had no official claim to any portion of the business, except in the Metropolitan Improvements, and that his employment to design buildings was "as much a matter of selection by this Board as would have been that of any other member of his profession" ([40]). The difficulty lay in making clear dividing-lines between giving advice on the design and layout of new buildings and preparing detailed designs

which, once made, had to be paid for. Once Pennethorne had made preliminary designs it was both easier and cheaper to employ him than to go through the whole process again by holding a competition, attractive though this might seem to those who favoured the removal of all taint of patronage from Whitehall. For some time, therefore, he retained his position as government architect.

Pennethorne's first new commission under the reorganised Office of Works was for the construction of a new Stationery Office near Westminster Abbey. Other commissions followed in the relatively buoyant financial climate of the times: an internal remodelling of the Post Office at Liverpool ([41]), a new southern wing at Buckingham Palace, containing a magnificent new ballroom and supper room which was finally completed in 1856 ([42]), and a new Duchy of Cornwall office on ground facing the palace ([43]). He also became involved in 1853 in two larger but abortive schemes: the development of the South Kensington estate, bought by the Commissioners of the Great Exhibition of 1851 ([44]), and the provision of new blocks of government offices on the western side of Whitehall ([45]). Had either been carried out, Pennethorne would have made as great a mark on 19th-century London as any other architect, but in the end there was only one building to show for his efforts: a modest and short-lived extension to the recently-established South Kensington Museum in Brompton Road.

Pennethorne's more ambitious proposals were abandoned because of changes in the way in which the Office of Works chose its architects. Administrative reform was in the air in the early 1850s, and patronage was coming under attack. With business increasing, Pennethorne was asked in September 1853 to make quarterly reports on the works he was supervising, and he was given a salaried assistant, William Smith ([46]). In the following year the "Northcote-Trevelyan" report on the Civil Service recommended reforms in the "general branch" of the office, including the appointment of an Assistant Secretary to take some of the increasing administrative burden from Philipps. In the "professional branch", it recommended giving more powers to the Surveyor of Works to enable him to cut costs, and suggested that Pennethorne's fees were too high. It suggested bringing the buildings used by the Customs and Excise, the Inland Revenue and the Post Office under the aegis of the Office, and drew attention to the waste incurred by the widespread practice of renting offices for government departments; these rentals cost the government some £15,000 a year, a sum which could, it was argued, be avoided by the erection of new centralised offices at a much smaller long-term cost ([47]).

Arguments for reducing public spending on official accommodation became more pressing after the outbreak of the Crimean War in March 1854. The cost of

public works was already increasing, and each summer there were probing questions in the House of Commons when the annual estimates were presented ([48]). Lord Aberdeen's Chancellor of the Exchequer, Gladstone, and his successor, Sir George Cornewall Lewis, hoped at first fo finance the war out of taxation, but they were forced to resort to borrowing, with a consequent increase in the National Debt ([49]). Public spending nearly doubled in the twenty years after 1854 and in seven out of the fifteen years between 1851-2 and 1866-7 Parliamentary votes for public buildings topped the £1m mark ([50]). National income was still rising rapidly, but given Gladstone's belief that "economy is the first and great article in any financial creed", it is not surprising that an ever tighter rein should be imposed on anything that might be construed as avoidable expenditure ([51]).

The Treasury was the main vehicle for controlling expenditure, and the Office of Works, as its sub-department, had to play its part in keeping costs down. Its task was now to "... be confined to securing efficiency and economy in the execution of the Works, and to the execution of such general control as circumstances may admit" ([52]). Parliament meanwhile maintained its vigilance, backed by the Press, and the result was generally successful. Ordinary expenditure on public works and buildings increased at a much slower rate than overall government expenditure in the rest of

the 1850s and 1860s, and actually fell in some years ([53]). New buildings were built against a background of ever stricter scrutiny by civil servants, ministers and backbench M.P.s. Pennethorne soon fell victim to this scrupulous control.

With Sir William Molesworth in command of the Office of Works, Pennethorne enjoyed a considerable degree of security and respect. Molesworth's departure in July 1855 left the way open for a very different regime. His successor, Sir Benjamin Hall, was a domineering, energetic and abrasive man who owned large estates at Llanover (Gwent) where his wife made widely-publicised efforts to preserve the Welsh language and to revive Welsh dress ([54]). As M.P. for Marylebone in the 1830s and 40s, he had joined Hume and others in attacking government extravagance, not least in architecture, where he publicly deplored the high costs of the Houses of Parliament ([55]). He had built up a reputation as a champion of "local self-government", and in August 1854, with the help of the Home Secretary, Lord Palmerston, had became President of a reconstituted Board of Health. In this capacity he had piloted the legislation creating the Metropolitan Board of Works through Parliament. Palmerston became Prime Minister early in 1855, and promoted Hall six months later, although he was not given a seat in the Cabinet.

Hall saw the Office of Works as an Augean stables awaiting its Hercules. Certain aspects of the

Office were bound to irritate any champion of administrative efficiency. Philipps, the secretary for 42 years, had been unable to work for nearly a year because of ill health; he died in November "worn out in the public service". His Assistant Secretary, John Thornborrow, appointed by Molesworth, had proved unfit for the task and had had a nervous breakdown. The accounts were therefore in disarray. The works section was equally run-down. Soon after taking over, Hall asked Phipps, the Assistant Surveyor of Works, about his work, and was told that "he had nothing to do at that time particularly". Hall believed that "... the state of things [was] so bad, that it was my duty to give up everything for the purpose of remodelling the department" ([56]).

His recommendations were embodied in a Report submitted to the Treasury in November 1855. They included the appointment of a new Secretary, Alfred Austin, a former Poor Law inspector who had been recommended by Charles Trevelyan, the powerful Assistant Secretary in the Treasury; he was later given an assistant, George Russell. Routine business was left in the hands of Phipps and a second Assistant Surveyor, George Buckler, but Pennethorne's assistant William Smith, was dismissed and a new part-time Surveyor of Works appointed in place of the ineffective Inman, with a salary of £1200 a year - later reduced to £1000 ([57]).

The new Surveyor of Works, appointed early in

1856, was William Henry Hunt, son of a builder, and principal partner in the firm of Hunt and Stephenson of 45 Parliament Street. A leading member of the relatively new profession of quantity surveyor, Hunt had enhanced his reputation by his accuracy in surveying the new Houses of Parliament, through which he must have first come into contact with Hall ([58]). He had good connections with several architects, including Gilbert Scott, and soon built up a position of considerable influence in the Office ([59]).

Hall believed that his reforms made the constitution of the Office almost perfect. Spending was brought under control - the annual cost of official furniture halved over five years - and Parliamentary supervision increased, in the spirit of the reforms of 1832 and 1851. Hall was brought into "constant communication" with Hunt, and saw Phipps daily and the other assistant surveyor twice a week. They had to see him personally before requesting money, and had to submit written reports on all projects. Hunt was consulted on "... every question of the slightest importance", including the need for new buildings. He became responsible for estimating the cost of proposed public buildings, and for supplying the names of builders invited to tender for public works. He thus displaced Pennethorne from most of his advisory functions ([60]).

Hall's reforms had further implications for

Pennethorne. Phipps's death had deprived him of his main supporter in the Office. The new Chief Commissioner was no lover of architects, and disliked paying them by a percentage of the total cost of a building, believing that they had a vested interest in high expenditure. Soon after taking office he entered into a long controversy with Charles Barry over his fees for the Houses of Parliament ([61]). In March 1856 he accused Pennethorne of spending money on Buckingham Palace without consent, and told him in future to "draw up your Specifications so fully that they will include, so far as possible, all contingencies... and that on no account, or under any circumstances [to] deviate from the Plans once approved without ... having the authority in writing of the Chief Commissioner for the alterations you may suggest" ([62]). In the same month Hunt was asked to investigate the remaining Metropolitan Improvements schemes which had been begun before the Metropolitan Board of Works was set up. The most important of these works was Battersea Park, planned as long ago as 1845, but still little more than a depressing swamp. Hall believed that by consistently underestimating the sums of money needed for this and other projects, Pennethorne had caused delay and embarrassment to the government. Pennethorne regarded the enquiry as an infringement of his professional status, and refused even to meet Hunt, although he had originally backed his appointment ([63]). When Pennethorne was finally persuaded to submit

detailed reports on the works in progress, Hall took them, as confirmation of his suspicions ([64]). Further complaints in 1857, inspired by backbench questioning of the continuing high costs of Battersea Park, provoked a long and detailed rejoinder from Pennethorne, but this did not prevent him from being relieved of further responsibility for the park, which was completed by other hands ([65]).

An even greater blow came when Hall decided early in 1856 to reverse recent Office practice by holding competitions for "Architectural works of magnitude" ([66]). Hall was no penny-pinching philistine. He was prepared to use government patronage to beautify the Royal Parks and rebuild Whitehall as Napoleon III was rebuilding Paris; one peer even accused him of "wishing to become another Lorenzo, to go down to posterity as Benjamin the Magnificent" ([67]). But as an amateur architect himself and a believer in "the career open to talents", he thought that the government should "not be restricted in the choice of architects" ([68]). In his view, Pennethorne was an incorrigible product of the discredited patronage system whose traces he was determined to remove from the Office of Works.

Hall had already received support from the Saturday Review, a journal newly founded by Alexander Beresford Hope, the former Tory M.P. for, Maidstone and "the Nestor of Ecclesiology". Hope, the guiding spirit behind Butterfield's "model church", All Saints Margaret

Street, was now prepared to use his formidable argumentative powers and knowledge of architecture to plead the case for the adoption of Gothic for large public buildings ([69]). Pennethorne was an easy target. According to an article published in the Saturday Review in November 1855, he was "... an inheritance of the Georgian era, when the divorce between political administration and artistic refinement was complete ..." ([70]). Hall did not share Hope's politics, but he was happy to enlist his help in a campaign against what he saw as favouritism and jobbery. The result was that Pennethorne lost the commissions for the two major government office buildings under contemplation, the new Foreign Office in Whitehall, and a War Office in Pall Mall ([71]). Competitions were announced for these buildings and Pennethorne, who refused to enter them, found himself for the first time for some years without any major public buildings to design.

With his architectural practice diminished, Pennethorne was forced back to rely on surveying work. Even here he faced a threat from Hall, who announced in May 1856 that he was transferring the remaining surveying business of the Office - chiefly in connection with the acquisition of sites for new public buildings -to Hunt ([72]). If implemented, this scheme would have been, in Pennethorne's view, "a direct violation of the terms of my employment under which I agreed to abandon all private professional practice". He therefore

appealed over Hall■'s head to the Treasury, where he found support from Sir George Cornewall Lewis, the Chancellor of the Exchequor. Hall was told that while Pennethorne had no right to be employed to design public buildings, he should not be deprived of surveying work unless found guilty of inefficiency or misconduct ([73]). His status as a civil servant - though not as government architect - was therefore secure.

The Chief Commissioner was delivered a further snub by the architectural profession in July 1856 with the award of an RIBA Gold Medal to Pennethorne, after the recent successful completion of the extension to Somerset House ([74]). The citation, signed by 15 architects, spoke pointedly of "the skill and intelligence which you have habitually brought to bear upon complicated and difficult questions of a technical nature, and the most anxious attention to protect the public interests in the very extensive purchases of property entrusted to your care". The award gives a good indication of Pennethorne's high status in the British architectural establishment. Despite the growing vogue for Gothic, power in the architectural profession still rested in the 1850s with men like Barry, Cockerell and Pennethorne who were trained in the principles of classicism. It is this which explains the intemperate attitude of Beresford Hope whose favoured architects were conspicuous by their absence from the chorus of applause for Pennethorne.

Palmerston's government fell in February 1858, and in the following year Hall went to the Lords as Lord Llanover, never to hold public office again. He was replaced by Lord John Manners, who reverted to the practice of Hall's predecessors by asking Pennethorne to design an important public building, the new Staff College at Camberley, and commissioning him to prepare a plan for the layout of the Burlington House site in Piccadilly, purchased by the Government in 1854 ([75]). Any hope of gaining grander commissions, though, was short-lived. In the last months of the Palmerston administration, the Treasury attempted to reinstate Pennethorne as architect of the Foreign Office in the place of the competition prizewinners. This became known early in 1858 and Gilbert Scott, one of the prizewinners, "stirred up" the RIBA to protest. The subject was referred to a Commons Select Committee chaired by Beresford Hope, now back in Parliament as a Tory M.P., and its report, published in July 1858, backed Scott. Doubtless in order to persuade Manners to abide by the committee's recommendations, Hope's Saturday Review now published an even more vicious attack on Pennethorne, claiming that he had "proved himself to be incapable of a great or even a decent architectural work" ([76]). Urged on by Hope and his supporters, and Manners finally awarded the Foreign Office commission to Scott. The stage was set for the celebrated "Battle of the Styles".

Still smarting under his treatment by Hall, and worried about being "put upon the shelf" - as he himself put it, Pennethorne now appealed to Manners for "full employment" with a regular income and security from the whims of awkward politicians. The question was referred to the Treasury, which held an internal inquiry into Pennethorne's position in June 1859. The mandarins concluded that while Pennethorne did not have a claim to a salary comparable to the fees he had received in the past, or to compensation for loss of work, he should be given a £1500 salary for his ordinary business for the Office of Works, in addition to an £850 salary from the Office of Woods, and the usual percentage fees for any major new buildings he might be asked to design ([77]). He would continue to pay his own office expenses, which amounted in the 1860s to some £600 a year ([78]).

The new arrangement removed some of the ambiguities in Pennethorne's position. The salary from the Office of Woods was intended to cover his work on the Crown Estate, the nature of which changed little over the years. The Works salary was to compensate him for "general services", including the giving of architectural advice, the valuation and purchase of property for new government buildings, and negotiations with railway companies when their new lines passed through government-owned land ([79]). Pennethorne later claimed that he did "not covet employment as a Surveyor, I was educated as an Architect; I greatly prefer that

Profession; I gave up my private practice as an architect on the assurance of full employment from Public Buildings" ([80]). But it had become clear that Hunt, with his large private practice, could not handle all of the rapidly increasing surveying work, and Pennethorne had no option but to accept what the government offered him ([81]).

After 1859 Pennethorne was restored to something of his former position in the Office of Works. With the failure of Hall's attempt to concentrate all the surveying work in Hunt's hands, a modus vivendi was worked out under which Hunt framed competition specifications, worked out quantities for new buildings, and checked the architects' accounts. Pennethorne was once more consulted as an advisor "on general questions relating to Works and Public Buildings" ([82]). He later claimed that his salary was paid in part "for being constantly at the command of the First Commissioner, and for advising the Board generally on such architectural and surveying questions as may be referred to me relating to Works and Public Buildings"; and during the 1860s he was repeatedly described as surveyor and architectural advisor to the Office of Works ([83]). In effect he became one of a semi-official council advising the Chief Commissioner on matters relating to public works, along with Hunt, Austin and the Assistant Secretary, Russell. This role lasted until 1869.

Manners stepped down as Chief Commissioner

when Lord Derby's second government fell in May 1859. His successor in the second Palmerston administration, Lord Henry Fitzroy, died in December after only six months in office, and was succeeded in February 1860 by Palmerston's own stepson William Cowper. Cowper was an experienced though not a very ambitious politician, whose languid and relaxed manner charmed some and infuriated others. He had acted as private secretary to his uncle Lord Melbourne, and later held junior positions in various government departments before succeeding Sir Benjamin Hall as President of the Board of Health in 1855. He continued to show an interest in social and philanthropic legislation, and was a promoter of the Social Science Association. A friend of Dante Gabriel Rossetti and John Ruskin, with whom his wife corresponded, he showed more interest in contemporary art than most of the holders of his office, and later became one of the first trustees of Ruskin's St. George's Guild ([84]). Perhaps his most adventurous piece of patronage was the choice of the William Morris firm to carry out a redecoration of two of the state rooms in St. James's Palace in 1866-7 ([85]).

Cowper remained Chief Commissioner until the fall of the Liberals in 1866. During his tenure he faced contradictory demands to reduce expenditure on the one hand and to take an active lead in beautifying London on the other ([86]). Generally speaking, economy triumphed over aesthetics. Palmerston's determination

to re-equip the armed forces put a strain on the national finances at the same time as Gladstone, again Chancellor of the Exchequer, was trying to reduce Government spending in order to introduce tax cuts ([87]). For a short time, ordinary estimates in the Office of Works were indeed reduced to slightly lower levels, but they began to rise again after 1863, reaching the £1m mark for the first time in 1868 ([88]). Meanwhile, with work beginning on Scott's Foreign Office, extraordinary payments for major new buildings rose too. In such a climate, the creative opportunities for architects were bound to be relatively few.

During his tenure of office, Cowper had to face growing demands for a solution to the chronic problems of overcrowding in the government offices and the headquarters of the major national institutions. In the 1850s three areas had been earmarked for new buildings: Whitehall, Burlington House and South Kensington. To these were now added a site between the Strand and Carey Street for long-awaited new Law Courts. The main difficulties lay in deciding which institutions should occupy which site, and who should design the buildings. Many hours of Parliamentary time were given over to discussing the merits and demerits of different sites for institutions like the Royal Academy and the National Gallery. Public opinion also made itself felt in the choice of style. Lord Elcho, a frequent critic of Government policy on the arts,

reminded M.P.s in 1863 that "[a] great change was taking place in the spirit of British architecture. An earnest, truthful school was springing up, which abhorred pretences and used only bricks, stone, marble and such materials as looked what they really were. Although the rays of the Lamp of Truth had not yet penetrated the gloom of Downing Street... he did not despair of seeing a new London, at once truthful and picturesque in its architecture, rise on the ruins of the dead conventionali ties and stucco shams of the present period" ([89]). Cowper deplored that the arts "had been made the battle-field of rival pretenders to taste" ([90]), but he had no option but to bow to public pressure by calling competitions for the new Natural History Museum at South Kensington, the new Law Courts, and the extension of the National Gallery at Trafalgar Square.

Pennethorne played an important part in formulating official policy on public buildings during the Cowper regime. His influence varied from site to site. He had little to do with the development of South Kensington after the completion of his temporary building for the South Kensington Museum in 1856. Here the dominant figure was Henry Cole and his Department of Science and Art. Pennethorne nevertheless acted as an assessor in the Natural History Museum competition of 1864, and prepared an impressive design for the Albert Memorial which was passed over in favour of Gilbert

Scott's Gothic monument early in 1863 ([91]). His role at Burlington House was more central. He prepared several schemes in 1861-3 for accommodating the National Gallery and the Royal Academy on the site, before being given the commission in 1866 to design a new Senate House for London University on the garden space behind the 18th-century house, which was given over to the Royal Academy ([92]). He also played a part in the planning of Whitehall and its surroundings. In 1861 he prepared a preliminary scheme for building an extension to the Admiralty on ground to the west of the existing 18th-century structure north of Horse Guards Parade ([93]), and a few years later, as architect to the Crown Estate, he made plans, which have already been discussed, for laying out the eastern side of the street with new public offices. These plans were not acted upon, but like his preliminary plans for the Admiralty, and those he prepared for the new Law Courts in 1865 ([94]), they became part of the collective wisdom which helped later Chief Commissioners reach the decisions whose results we see today.

Cowper continued the practice of his predecessor by giving Pennethorne commissions to design buildings where the scale or character of the work did not seem to merit holding a competition: a new picture gallery at the National Gallery constructed when the long-term future of the Trafalgar Square building was still uncertain (1860-1) ([95]); the remodelling of

Marlborough House and the building of a new stable block for the Prince of Wales (1860-3) ([96]); extensions to the Principle Probate Registry at Doctors Commons in the City (1860-1 and 1868-9), and a new library at the Patent Office (1865-7) ([97]); and, most important of all, the building of the east range and tower of the Public Record Office (begun 1863) ([98]). Despite several disappointements therefore, his architectural practice flourished during the 1860s, and in 1865 his status as an elder statesman of the profession was marked by the award of the RIBA Royal Gold Medal ([99]).

Palmerston died in 1865, and the Liberal government fell in the following year. Lord John Manners now returned to the Office of Works for the third and last time. His tenure was not marked by any important policy changes, but in a minor replay of the "Battle of the Styles" Pennethorne was encouraged in 1866 to replace his "plain classic" first design for the facade of the London University building in Burlington Gardens with a Gothic design, and then, after much protest and debate, to scrap that scheme in favour of the present enriched Renaissance facade ([100]).

The fall of the Conservatives in the first general election after the 1867 Reform Act signalled another upheaval in the Office of Works. Gladstone, who became Prime Minister in the new Liberal administration at the end of 1868, regarded the popular vote in his favour as a mandate for enforcing more of the "strict

economy" policies with which he had been associated in the past. For the Office of Works this meant the application of an even harsher regime of Treasury control over spending. Writing to the new Chancellor of the Exchequor Robert Lowe, Gladstone expressed the fear that "[the] great danger is excess in the buildings we raise and the affectation of a Palatial style in what are after all workshops" ([101]). The instrument for enforcing this bleak doctrine was the new Financial Secretary to the Treasury, Acton Ayrton, barrister M.P. for Tower Hamlets. Under a ruling from Lowe, Ayrton, aptly described as "the man who had assumed the mantle of Joseph Hume", now had to approve all proposals for new spending on public buildings ([102]).

Gladstone's choice as Chief Commissioner of Works was Alfred Henry Layard, a man of scholarly tastes and refined aesthetic sensibilities. Best known as the excavator of Nineveh, he had made a career in politics and had been an under-secretary in the Foreign Office under Palmerston and Russell. He possessed many of the qualities of artistic judgement which the growing number of critics of the Office of Works had long demanded in a Chief Commissioner ([103]). In an article published in the Quarterly Review in 1859 he had argued in favour of an appropriate functional style for public buildings ([104]), and on assuming office he tried to institute a series of reforms intended not only to increase the efficiency of the office, but also to enable it to

exercise its role as public patron of architecture more effectively.

Layard believed, like Beresford Hope, that the government should do more to set standards for beautifying London, though unlike him he was temperamentally inclined to look to classical models for inspiration. The imminent need to settle the design of important public buildings - the long-awaited National Gallery extension, the new Law Courts, the Natural History Museum where work had still not begun - together with the recent completion of the Victoria Embankment, gave him an opportunity, as he saw it, to "do something for the improvement of our public buildings and monuments, and for the embellishment of the metropolis" ([105]). His ideas were upheld by a Commons Select Committee, heavily influenced by Hope, which advocated that railway companies and other bodies preparing large-scale works in London should submit their plans for approval to the Chief Commissioner ([106]). But like "Benjamin the Magnificent" before him, Layard was frustrated, and the chance of imposing a coherent plan was missed.

Layard's reform of the Office of Works was brought about by the resignation of Alfred Austin as Secretary in 1868. In view of the great increase in the responsibilities of the office, the new Chief Commissioner proposed appointing two secretaries in Austin's place: a general secretary to control finance

and normal correspondance, but without the numbing responsibility for official furniture, and a "Secretary of Works and Buildings" who would superintend the preparation of architects' plans and give general advice to the Chief Commissioner. Under the old regime, this advice was given by Hunt and Pennethorne, but they were professional men, paid by percentage fees, and in Layard's view could not be expected to be totally impartial. Pennethorne had felt professionally debarred from giving opinions on other architects' plans and estimates , and as a result there was no built-in check on expenditure ([107]). Layard's candidate for the post of Secretary of Works and Buildings was James Fergusson, author of a number of scholarly works including the History of the Modern Styles of Architecture (1862), and he was appointed in January 1869 ([108]).

With Pennethorne's advisory duties in Fergusson's hands, his position in the Office became redundant. Layard therefore recommended the Treasury to discontinue his salary, and with it the post of "Salaried Architect and Surveyor" ([109]). The Treasury had saved Pennethorne's post from extinction under Hall. Anxious about some of Layard's other proposed reforms, it now appointed a Committee of Inquiry, which agreed in March 1869 to the abolition of Pennethorne's appointment, but insisted on modifying Layard's reforms by appointing an Assistant Secretary to scrutinise the official coal, candles and furniture which the First

Commissioner had hoped to remove from the purview of the Office. To finance this new post, Fergusson's salary would be reduced. Hunt was to continue as Surveyor, but was now to perform some of the surveys for large sites which had in the past been delegated to surveyors outside the office ([110]).

Pennethorne had no choice but to accept the new arrangement, but he did not do so without some bitterness. For 30 years his life had centred around his official duties, and he seems to have had few other interests. He would have to abandon his architectural practice and dismiss his staff, since it was clearly impossible to start a new private practice at his age. As he told Charles Gore, the Chief Commissioner of Woods and Forests: "Being now under 68 years of age with (as I hope) my intellect and powers of exertion equal to the performance of [my] duties, I had expected to continue to serve both offices some years longer, and it is painful to me to have that connection severed so suddenly and without cause assigned" ([111]). Gore failed to persuade the Treasury to continue Pennethorne's salary from the Office of Woods, but his retirement was postponed until June 1870, to allow him to complete the London University building, the current extension of the Public Record Office, and some surveying work ([112]). Concerned that earlier accusations of incompetence would affect his reputation after retirement, Pennethorne asked the Treasury "... to place on record that I have

not been dismissed but retire with honour, and only in consequence of the re-organisation of this department having rendered necessary the abolition of my office". This request was granted, the Treasury noting that he would "... leave the Public Service ... with honour and credit to himself" ([113]).

Pennethorne finally retired from architectural practice on 30 June, 1870. As a long-standing civil servant he was given a pension of £1766 a year. With his London University building just completed, the Builder suggested that a knighthood would be "highly esteemed by the profession", and in November this honour was conferred . He retired to his house, Worcester Park (Surrey), an 18th-century villa enlarged by Nash and purchased some five years before ([114]). Apart from an illness in 1867, he had enjoyed constant good health, but on 1 September 1871 he died suddenly of a heart attack, and was buried in Highgate Cemetary ([115]). His wife had died before him, and his property was placed in the hands of three trustees: his brother John, who was still living at Hamstead in the Isle of Wight, and his two eldest sons, Dean Parker Pennethorne, a barrister, and Frank James Pennethorne of Worcester Park. They were to divide his property equally among the surviving children ([116]).

Pennethorne's retirement marked the end of an era in the Office of Works. Layard had hoped to use Fergusson's advice to increase the public standing of

the Office. In fact, the reverse happened. Angered by the Treasury's refusal to countenance his schemes for improving London, he resigned in October 1869, claiming that the Office of Chief Commissioner had become "... little better than that of a clerk in the Treasury" ([117]). His successor was none other than Acton Ayrton, chief wielder of the Treasury axe. Ayrton's appointment was followed by the resignation of Fergusson, who resented being asked to perform petty secretarial duties. His post was now abolished, leaving Ayrton with the prospect of having no architectural adviser within the Office, though Hunt continued to advise on surveying matters, and was eventually knighted. As an enthusiastic retrencher, Ayrton was appalled at the high spending on architects' fees in recent years and agreed to a suggestion from the Chancellor of the Exchequer, Robert Lowe, for the appointment of Captain Douglas Galton, a Royal Engineer officer, as "Director of Public Works and Buildings". He was charged with the responsibility for supervising the construction of new government buildings, the preparation of contracts, and the payment of architects. He too resigned in 1875, and was not replaced. Two years later a writer in the Builder thought that the Office of Works was "... not artistically so well off as it was twenty-five years ago, when its ... chiefs had the advantage of an accomplished architect's advice" ([118]). The mediocre quality of some of London's public buildings of the

1870s and 80s, like the depressingly third-rate Admiralty extension, bears out this complaint.

Under Ayrton and his successors, major government buildings continued for some time to be put out to competition. As an economy measure, however, Ayrton tried to concentrate the less prominent architectural work of the office in the hands of the Assistant Surveyors, who received salaries and not professional fees. After Pennethorne's retirement many commissions, including that for the completion of the Public Record Office and the remodelling of the central part of the National Gallery, were given to John Phipps's former assistant, John (later Sir John) Taylor, a former carpenter who succeeded Phipps as Assistant Surveyor of Works in London in 1866 ([119]). Taylor's buildings were designed with an unpretentious competence which shows the continued influence of Pennethorne. He and Arthur Cates, Pennethorne's former deputy in the Woods and Forests, were his main architectural successors.

1. Cres 19/24, p.359; T1/6693A/3374. The house was repaired in 1845, and demolished at the end of the 19th century: Cres 19/31, pp.315-6; Survey of London xvi, p.175

2. T1/6693A/3774; Works 2/21, p.260.

3. T25/18, p.503. Two of Pennethorne's letters are preserved in the House of Lords Record Office, Willis MSS 2/168. His report is printed in Rep.Comm. for inquiring into the execution of certain Union Workhouses in Ireland, PP 1844 xxx [562], pp.1, 23-4, 83-4.

4. See Chapter 6.

5. Cres 19/32, p.152; T25/19, p.304.

6. TI /6693A /3774.

7. ibid. Works 2/21, p.259.

8. T1/6693A /3774; Works 2/21, p.260.

9. Kings Works vi. pp.186-8; T1/6693A/3774.

10. A Saint, The Image of the Architect (New Haven & London 1983), pp.62-3.

11. F.M.L. Thompson, Chartered Surveyors (1968), p.86.

12. T1/6693A/3774. These sums do not include those still owed Pennethorne by the government at the end of 1858.

13. Survey of London xvii., p.16.

14. PP 1849 xx., p.128.

15. ibid. pp.129-130. Four clerks were mentioned in 1859, Perkins, Robertson, Cates and Slack: T26/2, pp.403-4. Extra clerks were taken on in especially busy

times.

16. Builder 16 Sept. 1871, p. 718. H. Saxon Snell is also said to have been a pupil: R. Dixon & S. Muthesius, Victorian Architecture (1978), p. 267.

17. RIBA Trans. 1871-2, p. 60.

18. Builder 16 Sept. 1871, p.718.

19. See Chapter 8.

20. See Chapter 7.

21. Kings Works vi, pp.438-440.

22. Port, Houses of Parliament, p.142.

23. Rep. Sel. Cttee. on Misc. Expenditure, PP 1847-8, xviii [543],pp.ix-xi.

24. Rep.Sel.Cttee. on Woods, Forests, etc. PP 1847-8, xxiv.[538] pp.iv-v; PP 1849 xx [574], pp. 127-130. This committee did not publish a final report.

25. PRO 30/22/7C, f.393; /7D, f.119.

26. PP 1849 xx, p.50; Kings' Works vi pp.209-10.

27. Hansard, cxviii., 3 & 12 July, 1851, 175-180, 620.

28. Hansard cxvii. 16 July 1851, 798; cxiv., 11 March 1242-1267; cxviii. 3 July, 179. Kennedy had become Third Commissioner in the old combined office when Gore replaced Alexander Milne as Second Commissioner in August 1850: Kings Works vi p.679.

29. Hansard cviii. 22 Feb. 1850, 1318-1320.

30. King's Works vi pp.245-6; Parris, Constitutional Bureaucracy (1969) pp.88-91; Rep.Sel.Cttee. on Misc. Expenditure, PP 1860 [483] ix pp.76-9.

31. King's Works vi p.243.

32. C. Whitley, Lord John Manners and his Friends ii (1925), p. 49.

33. Mrs. Fawcett, Life of the Rt. Hon. Sir William Molesworth, Bart. (1901), p.307.

34. Cres 19/44, p.245; /48, p.120; /49, pp.136, 352.

35. Works 2/10, pp.778-80; /11, pp.51, 585-7; T 26/1, pp.82, 86, 151.

36. TI/6041A /20465; Works 22/2/10. f.5.

37. Works 2/10, pp.778-80.

38. TI /6693A /3774; Works 2/21, pp.254, 258.

39. PP 1860 ix, p.76.

40. TI/ 6693A /3774; TI /6041A /20465; Works 2/21, pp.257-8.

41. T1/5761A/25846; Works 1/36, pp.291, 446; /40, p.801; Works 30/827-8. The changes were minor, and the building was destroyed by bombing in 1941.

42. See Chapter 9.

43. See Chapter 7.

44. See Chapter 6.

45. See Chapter 7.

46. TI/ 6041A/ 20465; Works 2/11,p.269. Smith was paid £300 a year.

47. Rep.Cttee. of Inquiry into Public Offices, PP 1854 xxvii [1715] pp. 319-30.

48. Port, Houses of Parliament p. 142; Hansard cxxi, etc. 3 June 1852, 1383; cxxii 936-7 18 June 1852, 936-7; cxxxiii, 8 June 1854, 1278-9; cxxxvii. 16 Apr. 1855,

1476-8.

49. O. Anderson, A Liberal State at War (1967), pp. 15, 197.

50. M. H. Port, "A Contrast in Styles at the Office of Works", Hist.Jnl. xxvii (1984), p. 151.

51. Roseveare, The Treasury p. 190; Wright, Treasury Control of the Civil Service pp. 329-30.

52. T 26/2, pp.4-5, 8 Jan. 1857.

53. Wright, pp.373-4.

54. See e.g. A. Fairfax-Lucy (ed.) Mistress of Charlecote (1986), pp.95-99. The best account of Hall's life and career is in a series of articles by Maxwell Fraser in Nat. Libr. of Wales Jnl. xiii (1963-4), xiv (1965-6), xv (1967-8), esp. pp. 72-83, 113-123, 310-319, 389-399, and Trns.Hon.Soc.of Cymmodorion 1963(1) pp.70-81. See also Finer, Sir Edwin Chadwick, pp.463-473, and D. Owen, The Govt. of Victorian London, pp.31-3.

55. Port, Houses of Parlt., pp.162-5.

56. PP 1860 ix, pp.112-3.

57. ibid. pp.89-91, 114, 143; T26/1, pp.299-300; T1/6041A/20465. A third assistant surveyor, a Mr. Staire, was appointed later.

58. F. M. L. Thompson, Chartered Surveyors pp. 86-90, 365; Port, Houses of Parlt., p.77.

59. G. G. Scott, Personal and Professional Recollections (1879), p.197.

60. PP 1860 ix, pp. 83-91, 118-125, 135-144.

61. Port, Houses of Parlt., pp.162-5; Broadlands

Papers, GC/HA/30, 4 Aug.1856.

62. Works 1/49, pp.8-9.

63. TI/6693A/3774.

64. The reports are printed in PP 1856 lii. [193].

65. PP 1857 (2) xli [130], pp.2-3; ibid. [251], p.1, 11 July 1857.

66. Works 1/49, pp.116-7.

67. Hansard cxliv. 15 May 1857, 286-291; 12 June, 1674-1688.

68. PP 1857-8 xi. p.195. Hall designed a small Gothic church on his estates at Abercarn in 1859: Nat.Libr. of Wales Jnl. xiv (1965-6), p.294.

69. For Hope see B.F.L. Clark, Church Builders of the 19th century (1938), pp. 76, 169-70; H. W. & I. Law, The Book of the Beresford Hopes (1925), pp.214-22

70. Sat. Rev. 17 Nov. 1855, pp.48-9, 64-5.

71. See Chapter 7).

72. Works 1/49, pp.151, 399; /50, pp.194-6, 28 May 1856; PP 1857-8 xi. p.182.

73. T1/6693A/3774; T26/1, p.369; PP 1857-8 xi. pp. 184, 196.

74. RIBA Trans 1956-7, Appendix, p.3.

75. See Chapter 8.

76. Saturday Review, 24 July 1858, pp.82-3.

77. T1/6693A/3774; Works 2/21, pp. 258-262, 398-404; T26/2, p. 394; Cres 19/47, pp. 289-90; /48, p. 95.

78. T1/6693A/3774. A request for official salaries for his chief assistants was turned down: T26/2, pp.403-4.

79. T 26/2, p.400; Copy of Papers relating to recent changes in the Establishment of the Office of Works. PP 1868-9 xxiv. [336] p.4.

80. T1/6693A/3774.

81. He failed in an attempt in 1864 to gain extra payment for especially large or complicated surveys: Works 2/29, pp.285-6; T26/5, pp.55, 81, 15 Dec. 1865.

82. Builder, 8 Sept.1877, p. 897.

83. e.g. T1/6693A/3774, 16 Nov. 1865; Hansard, clxxv 30 May 1864, 850-1.

84. [Lady Mount Temple] Memorials, (privately printed 1890), pp.51-6.

85. Pevsner, Buildings of England: London; pp.516-7.

86. See for instance BN 6 April 1860, p.265; 31 May 1861, p.451.

87. R. Shannon, Gladstone i (1982), pp.389-90.

88. Wright, Treasury Control pp.373-4.

89. Hansard clxxii, 2 July 1863, 99-100.

90. ibid. 364.

91. See Chapter 9.

92. See Chapter 8.

93. See Chapter 7.

94. See Chapter 8.

95. See Chapter 6.

96. See Chapter 9.

97. See Chapter 8.

98. See Chapter 8.

99. RIBA Trans, 1864-5, 29 May 1865, pp.1-4; ibid.

1865-6, 6 Nov. 1865. His early protégé, Butterfield, was passed over: P. Thompson, William Butterfield, pp.61, 68.

100. See Chapter 8.

101. B.L. Add MS 44536, f.95.

102. Port, Hist. Jnl. xxvii (1984), p. 154. I have drawn heavily on this article for the next two paragraphs.

103. See "A Public Works Department Wanted", Sat.Rev. i (1855-6), pp.64-5; A.B.Hope, Public Offices and Metropolitan Improvements (1857); PP 1860 ix, pp.iv, 77, 118-9; Hansard clxxi, 5 June 1863, 406-425; clxxii. 7 July and 10 July 1863, 355-360, 577-585.

104. J. Steegman, Victorian Taste, (Cambridge, Mass, 1971), p.282.

105. Works 22/2/6, pp. 1-2, memo of 4 Nov. 1869.

106. PP 1868-9 x, p.iii, 2 Aug. 1869.

107. Hansard cxcvii. 12 July 1869, 1706.

108. PP 1868-9 x, p.28; PP 1868-9 xxiv., pp.2, 8.. For Fergusson, see N. Pevsner, Some Architectural Writers of the 19th century (Oxford 1972), pp. 246-50.

109. PP 1868-9., x, p. 29, 2 Aug. 1869.

110. PP 1868-9 xxiv, p.4, 8-10, 4 March 1869; Add MS 39053, 22 July, 1869.

111. PP 1868-9 xxiv, p.11, 15 April 1869.

112. ibid. p. 13; Works 1/90, p. 19.

113. PP 1868-9 x. p.14; T 26/4, p.297.

114. Information from Surrey County Record Office.The

house is illustrated in G. F. Prosser, Select Illustrations of Surrey (1828). See also V.C.H. Surrey iii pp. 267-9;

115. Builder 16 Sept. 1871, p. 717; Boase, Modern English Biography;. Other obituaries are in The Architect, vi (1871) p.130, R.I.B.A. Trans. xxii (1871-2), 18 Dec. 1871, 53-69, and the D.N.B.

116. Somerset House wills xiii (1871) 621, no. 14.

117. B.L. Add MS 38997, f.17, Layard to Gladstone, 12 Oct. 1869. See Port, Hist. Jnl. xxvii (1984), pp. 160-1.

118. Builder 8 Sept. 1877, p.898.

119. Works 2/21, p. 368, 19 July 1859; /30, pp.127-8, 3 May 1866; D.N.B. suppl., Taylor.

 (Footnotes on p.309)

MUSEUMS

Museums were among the most characteristic architectural monuments of the early 19th century. They represented both a thirst for "useful knowledge", and a growing democratisation of artistic taste. Starting with the British Museum, governments began to provide buildings for the display of antiquities and works of art given to, or acquired for, the nation. Because of the need to expand or add to these buildings, Pennethorne became involved in museum design. He designed London's first science museum (the Geological Museum in Piccadilly), prepared several schemes for expanding or rehousing the National Gallery, and was involved at an early stage in plans for developing the South Kensington estate, eventually to become London's museum quarter *par excellence*. These schemes occupy an important though largely unrecognised place in the evolution of museum design in this country.

THE MUSEUM OF ECONOMIC GEOLOGY

The science of geology played a large part in shaping man's view of himself in the 19th century. By demonstrating the great antiquity of the rocks which made up the earth's surface, the geologists helped create a new view of the origins of the planet which threw into question earlier religious and mythic explanations. The new discoveries expounded in books like Lyell's Principles of Geology (1830) aroused great public interest. The growth of industry led to a more systematic exploration of the earth's resources, and the geologist's skills came to have a very immediate practical relevance. It was this realisation of the economic value of geological research which lay behind the building of the first Geological Museum.

The Museum was an offspring of the Geological Survey, set up by the Government in 1837 under the overall aegis of the Board of Ordnance. The Survey's function was to produce a series of accurate geological maps of Great Britain, but with the encouragement of its energetic director and founder, Sir Henry de la Beche, it soon began to accumulate a substantial collection of rocks to illustrate the application of geology to industry. These collections were substantially enlarged by the inclusion of stones acquired by the Royal Commission set up in 1839 to recommend suitable building materials for the new

Palace of Westminster. A further extension of de la Beche's empire came from the setting up of a Mining Records Office, where models of coalfields and pit machinery were kept and displayed ([1]).

The Survey's first premises were in a house on the Crown Estate, no. 5, Craig's Court, at the northern end of Whitehall. With the establishment of the museum, the Survey expanded into the adjoining house, but by 1844 de la Beche was complaining that "we are becoming in a sad state now for want of the necessary space" ([2]). His plea for expansion was supported by the Prime Minister, Sir Robert Peel, who recognised the connection with the economic growth which his Government was trying to promote ([3]).

The site chosen in August 1844 was a long and narrow plot of Crown land, sloping down from Piccadilly to Jermyn Street, with slum housing arranged around a "court" next to a distillery. The removal of the court would enhance the value of the Crown property, which would be further increased if the ground floor of the new building were let for shops ([4]). The building was to house not only the museum but also the offices of the Geological Survey, the Mining Record Office, laboratories and a lecture room ([5]). This combination of a Government-funded educational and research establishment with a museum open to the public was an unprecedented one, and called for considerable ingenuity on the part of the architect.

The choice of Pennethorne came about in a casual way which reflects the easy-going methods of the 18th-century. He was never given a written order to design the building, and later admitted that he "... was employed because I was there" ([6]). Some preliminary designs presumably incorporating his first ideas were enthusiastically received by de la Beche in September 1844: "I like them much... Those great rooms with their galleries would hold great stores of things ... Give us but the kind of place we have here sketched out, and I believe we should even surprise ourselves, and that is saying something" ([7]). The arrangement of the rooms was to a large degree determined by the shape of the confined site. Shops were to be placed on the Piccadilly front, with the museum collections in a top-lit "great room" behind them, and the entrance on the Jermyn Street side. The rest of the accommodation would have to go on the upper floors of the Piccadilly and Jermyn Street ranges.

Pennethorne was formally told to examine the site and prepare plans in October 1844, and a month later he estimated the cost of the building at £28,860 - a sum to be supplied out of the revenues of the Crown Estate ([8]). Detailed plans and elevations followed in 1845, but progress was delayed against a background of growing political crisis and "haggling between different public offices" - a reference to Treasury obstruction ([9]). The autumn of 1845 saw the first

catastrophic effects of the Irish potato blight, and in January 1846 Peel declared his intention to move for a repeal of the Corn Laws.

In March 1846, against this sombre background, Pennethorne submitted what he must have believed were the final designs for the building, together with working drawings for the basement storey. He was sent back to the drawing-board when the estimated cost turned out to be over £10,000 more than was first envisaged ([10]). Peel's government fell in 1846, and not long afterwards de la Beche managed to persuade the new First Commissioner, Lord Morpeth, to omit the shops from the Piccadilly front. After more revisions Pennethorne sent in another set of designs in the autumn. The frontages to Piccadilly and Jermyn Street were now to be two and not three stories high, and the whole of the space between them was to be occupied by a large galleried top-lit room for the museum collection ([11]).

Three undated elevations represent Pennethorne's ideas on the facades at this stage ([12]). All are accomplished essays in the Italian Renaissance manner popularised by Charles Barry, but hitherto little used for the facades of museums, where the Grecian manner had held sway. They demonstrate Pennethorne's assimilation of the various motifs of the cinquecento and seicento and his ability to combine them in a powerful and original way. Each facade has two stories

and five bays, but that to Piccadilly (Plate 71a) is lower and highly ornamented, with an arcaded ground floor and elaborate moulded panels in the spandrels ([13]). Two alternative treatments were suggested for the plainer Jermyn Street facade, one faced in stone with a massively rusticated ground floor (Plate 72a), and the other, £750 cheaper, of brick (Plate 72b). Both include a round-arched entrance recalling the palaces of 15th-century Florence.

Work started in October 1846, and the basement was ready three months later, but the rest of the building was delayed yet again by second thoughts over the elevations. At Lord Morpeth's insistence, Lord de Grey, first president of the R.I.B.A. and an amateur architect of some distinction, was called in to comment on Pennethorne's designs. According to one account, Charles Barry also "improved [them] greatly" ([14]). Presumably as a result of these interventions Pennethorne now decided to hide the pitched roofs he originally intended behind parapets, and to simplify the elevations ([15]). On the Jermyn Street front he left out a proposed mezzanine floor, heightened the basement to include a workshop, and enlarged the windows (Plate 73). The five proposed openings on the Piccadilly front were increased to six - a strange and not altogether happy decision - and the Farnese-like aedicules around the upper-floor windows replaced by simple architraves and pediments (Plate 71b). What the

facades lost in richness they now gained in gravity. A final contract, which included rebuilding the basement, was signed in May 1847, and work began in July ([16]). It took some time to install the costly fittings, and the museum was not finally opened to the public until May 1851. The final cost exceeded the estimate by £4406, but, in a note to the Treasury Morpeth, exonerated Pennethorne from blame and called the building "one of the most successful of our recent additions to the Public Buildings of the Metropolis" ([17]).

The edifice which emerged from these protracted proceedings was one of the most interesting public buildings of Victorian London. Pennethorne's two facades - which could never be seen together - presented sophisticated but contrasted treatments of the Italianate idiom ([18]). The more elaborate Piccadilly front was faced with stone from Anston near Mansfield, chosen by de la Beche ([19]), but as an economy measure the entrance front to Jermyn Street was faced with pale gauged brick from Colchester, with Anston dressings. Both facades, were astylar, and in both the interest was focused on the openings, the window architraves, the quoins and the bold modillion cornices throwing shadows on the otherwise plain surfaces. Here the resemblances ended. The most striking part of the Piccadilly front was the ground-floor arcade - a reminder of the original intention to

devote the ground floor to shops, as in some Italian palazzi. The deeply undercut piers and spandrels, and the roundels employed in place of the usual wedge-shaped keystones, gave this part of the building an almost Mannerist complexity.

The Jermyn Street facade fronted a less important street than Piccadilly, and architectural decorum demanded a simpler treatment. Its main focus was the doorway, surrounded by richly-carved architraves, and surmounted by a frieze and a heavy cornice; according to one writer it was "...almost unique..., noble and even imposing for its amplitude, and though simple in its general composition, singularly rich in design... [We] would readily give half-a-dozen of our usual Doric or Ionic porticos for one such portal as that we are noticing" ([20]).

Had Pennethorne's original intentions been carried out, the entrance doors would have been adorned by the first major work by Alfred Stevens, one of the very few 19th-century English sculptors who can bear comparison with the masters of the Renaissance. Stevens was assistant master at the Government School of Design in Somerset House, and was appointed in 1846, apparently at the suggestion of Pennethorne and Cockerell, to supply a design with bronze panels containing figures symbolising the museum's aims ([21]). He started working on the design by October of that year, and there was a model of the "Coal Getter" in his studio in

1850. A detailed, but undated, drawing (Plate 74) shows powerful figurative groups in the eight main compartments, surrounded by the classical framing of Pennethorne's doorway - a composition of great nobility ([22]). Unfortunately, the commission was never completed owing, according to his most recent biographer, to Stevens's "procrastinating love of perfection" ([23]).

Stevens's involvement with the Museum did not stop with his design for the doors. Two undated coloured drawings show alternative decorative schemes for the entrance hall and staircase ([24]). De la Beche wanted marble decoration to be introduced inside the building for didactic purposes, as was later to happen in the Oxford University Museum of 1855 ([25]). Stevens's designs (Plate 75) show how painted decoration, some of it abstract and some figurative, might have been used in conjunction with the marble to create an effect of great splendour, with arabesques and Michelangelesque figures against backgrounds of deep red and blue. The design was never carried out. Marble and mosaics for the entrance hall were being supplied in 1851, and the decoration was eventually entrusted to one of Pennethorne's assistants, Charles Frederick Reeks ([26]).

Even without Stevens's decorations, the interiors were dramatic and impressive. The entrance hall, divided up by massive Doric columns, extended into the depths of the building, with two flights of stairs

leading upwards (Plates 76, 77a). A well-lit hall on the upper floor was divided by an Ionic colonnade from the main Museum. Here Pennethorne had to arrange for the logical display of countless small specimens of rock. His solution was to place the objects in three tiers of glass cases arranged around the walls and reached by cantilevered galleries - an idea which he took from the Hunterian Museum of surgical specimens added by Charles Barry to the Royal College of Surgeons in Lincolns Inn Fields in 1835-7 ([27]). In the centre there was an open well surrounded by a balustrade, to allow some natural light into the tenebrous lecture room below. The visual contrast between the low entrance hall, the colonnaded upper hall and the great open glass-roofed expanse of the museum gallery must have been dramatic in the extreme.

Constructionally, the most interesting feature of the Geological Museum was the arched roof of glass and iron over the museum gallery (Plate 77b, 78). Because of the cramped nature of the site and the lack of effective artificial lighting, Pennethorne needed to admit as much natural light into the building as possible. Technological advances made it possible for him to do this without encumbering the floor with troublesome supports. Cast iron had begun to be used constructionally at the end of the 18th century, and Nash had used it in the glazed roof of the picture gallery at Attingham Park (Shropshire) in 1805-7. But

it was in more utilitarian structures like market halls, shopping arcades and railway stations that a new architectural language of iron and glass was first developed. The Galerie d'Orléans in Paris, the first building with a glass tunnel-vault, was begun in 1828 ([28]), and a few years later Labrouste's famous Bibliothèque Ste. Genévière (1843-50) openly applied the new techniques to a higher status building. Pennethorne's museum belongs in this company. Virtually contemporary with Bunning's Coal Exchange, it was one of the first English public buildings to make an open use of the new glass and iron techniques, although the iron trusses were covered with stucco mouldings. Pennethorne's roof was in effect supported on a series of huge iron hoops with a span of 55 feet, their cross-section not unlike that of the four-centred late-mediaeval arch familiar in buildings like the Oxford Divinity School. The uprights were placed 6 feet away from the outer wall, allowing for the introduction of recesses to contain the display cases ([29]). In these ways Pennethorne solved the crucial problems of lighting, access and display, without which no museum can be counted successful.

The spectacular "great room" should not detract from the merits of the rest of the building. The area below was taken up by the Doric-columned Marble Hall, and the lecture room, with semicircular benched seats sunk down into the basement. Offices, library and

laboratories occupied the block facing Piccadilly. There was a fire-proof assay furnace in the basement together with furnaces for a sophisticated heating and ventilation system ([30]). For all its Renaissance exteriors, the building was in fact, like Barry's Reform Club, an elaborately serviced structure making use of the best technology the 19th century could provide - a successful union of the old with the new ([31]).

Pennethorne's Geological Museum lasted less than a century. Bomb damage to nearby buildings during World War I weakened the iron roof structure and by the 1930s the museum officials were becoming desperate for more space. In 1935, therefore, it was decided to close the building, and to remove the collections to South Kensington, their present home ([32]). Thus was London deprived of one of its most significent early Victorian buildings. Never again was Pennethorne to have a better opportunity of combining structural ingenuity with classical decorum. The site is currently occupied by Simpson's outfitters, in its way as much a monument to the advanced taste of the 1930s as Pennethorne's building was to that of the 1840s.

THE NATIONAL GALLERY, 1838-1867

The national collection of pictures grew out of a bequest by John Julius Angerstein in 1824. The

pictures were first housed in Angerstein's house in Pall Mall, but the Whigs decided in 1832 to commission William Wilkins, the treasurer of the Royal Academy, to build a new gallery on a site overlooking what is now Trafalgar Square ([33]). The new building began to be criticised before the first stone was laid, and William IV, in one of his last recorded utterances, is supposed to have called it "a nasty little pokey hole" ([34]). Three months after it was finished in 1838 there were complaints about the excessive heat, the foul atmosphere and, above all, the lack of space ([35]). Contemporary commentators were no less critical of the loose composition of the long, low facade, singling out the dome and the turrets or "pepper pots" at the ends for particular riducule ([36]). A writer in the Quarterly Review for 1837 had "... never heard a single word uttered in favour of the building, either per se, or considered with reference to the magnificent position which it has been allowed to occupy" ([37]).

There is certainly a smallness of scale and lack of robustness in Wilkins's design, especially in its absurd pimple of a dome (Plate 79a), but it would be unfair to blame all the building's shortcomings on the architect. The site was unusually long and narrow, and bounded at the rear by a barracks and the parochial workhouse of St. Martin in the Fields (Plate 79b). Wilkins was forced to realign the facade so as to preserve the vista from Pall Mall to the portico of St.

Martin in the Fields, making it difficult for the building to dominate Trafalgar Square as it should. Two public passageways led through to the barracks and the workhouse, making the ground level virtually useless. Stringent financial restrictions were imposed by a government eager for retrenchment and anxious to placate public opinion. The National Gallery had to share the new building with the Royal Academy, ejected from its original home in Somerset House ([38]). The western half, with three large and two smaller top-lit galleries on the upper (second) floor, was allotted to the National Gallery; the Academy was given the eastern half (Plate 80). The centre was given over to a two-storied Great Hall, the only room of real visual distinction, with a separate staircase leading to each institution. The lower (first) floor, too poorly lit to show pictures, was largely devoted to storage, offices, and the display of casts ([39]). A one-storied apsidal projection behind the Great Hall housed the Royal Academy's sculpture collection.

Several schemes for altering or extending this rather unsatisfactory building were prepared in the late 1830s. They explored the full gamut of possibilities which have preoccupied the unfortunate architects involved with the building from that day to this: building a gallery across the functionally useless entrance hall to link the two halves of the building; building over the barracks and workhouse sites;

constructing an extension to the west; bringing the facade further forward; and rebuilding the dome ([40]). These plans attracted little official notice until 1844. By then Nelson's Column had been built, and Trafalgar Square laid out by Charles Barry, one of the most persistent critics of Wilkins's building. The Prime Minister, Sir Robert Peel, was an active trustee of the National Gallery and a major art collector in his own right. He asked Lord Lincoln to investigate the possibility of improving the facilities for the display of the Royal Academy's sculptures, and in the autumn Pennethorne submitted three sketches showing a remodelled sculpture room and a new picture gallery 120 feet long which could be extended over the barrack ground at first-floor level ([41]).

This relatively modest scheme was soon overtaken by more grandiose plans. Peel's concern for the gallery's pictures was shared by the Keeper, Charles Eastlake, who "more than any other [man] established the international status of the National Gallery" ([42]). In an open letter to the Prime Minister published in May 1845 he complained that the pictures in the upstairs galleries were placed too close together, and recommended building a completely new gallery, perhaps in the centre of Hyde Park ([43]). A month later Peel told M.P.s that they had "thrown away a most magnificent site" by granting so little money for the original building in Trafalgar Square. So many alterations would be needed to

make it fit for its purpose that it would be better, and in the long run cheaper, to build a new gallery - a conclusion from which, in the light of the chequered history of the building up to and including the present day, it would be difficult to dissent ([44]). A new building to house both ancient and modern works of art could be built, he thought, on the site of St. James's Palace, with an ornamental garden fronting the Mall. The construction of a new south wing at Buckingham Palace would enable the Queen to hold her Drawing Rooms and Levees there and not at St. James. The cost should not be a drawback because "... [if] you provide for really valuable pictures ample and suitable means of exhibiting them, the expense of constructing a magnificent gallery will at no distant period be repaid by presents and bequests" ([45]). Pennethorne produced a block plan showing how the gallery could be combined with an extension of Pall Mall west to Green Park, but the idea was later quashed by the Chancellor of the Exchequor on the grounds of expense, although it was being discussed again in 1848 ([46]).

Peel's schemes were overtaken by the Irish Famine, and the crisis over the repeal of the Corn Laws which led in 1846 to the fall of his government. In the following year, the question became more pressing after Robert Vernon offered his collection of 157 paintings by recent British artists to the nation ([47]). Vernon was a discriminating collector who had made his fortune as a

contractor of horses to the Government during the Napoleonic Wars. He gave his pictures on the condition that adequate space should be provided to house them, but by 1847 the only space available in the Trafalgar Square building was in Wilkins's hall, and in the Board Room ([48]). The question of providing more permanent space was referred to Pennethorne, this time by the trustees themselves, who stressed "... the extreme importance ... not only of obtaining the additional space absolutely required, for the National Pictures, and an improved Sculpture-Gallery for the use of the Royal Academy, but of proceeding without delay to carry them into execution during the Recess" ([49]). In May therefore, he submitted plans - later revised - for a new picture gallery which would link the National Gallery and Royal Academy premises by flooring over Wilkins's hall at a cost of £8000 ([50]).

The project foundered on the question of Parliamentary control over Government expenditure. The Whigs dropped Peel's plans when they came to power and did not include the National Gallery in their estimates for spending. Lord John Russell announced in August 1847 that work could not start without Parliamentary approval, and Pennethorne's scheme languished ([51]). From May 1848, the Vernon pictures were temporarily exhibited in the donor's house in Pall Mall, before being removed to the dingy ground-floor rooms at Trafalgar Square and then, in 1850, to Marlborough House, recently vacated by

the death of Queen Adelaide. Here they remained until 1859 ([52]).

The government meanwhile decided to refer the long-term question of housing the pictures to a Commons Select Committee - the first of several to tackle the issue. The Committee met in June, 1848, and questioned Eastlake, Barry and Pennethorne, who produced drawings to illustrate his schemes of 1844 and 1847, as well as other plans for building galleries over the barrack ground. These schemes were dismissed as inadequate by the other witnesses. Eastlake pointed out that, even with the proposed new gallery over Wilkins's hall, the building would only just have sufficient space for the existing collections, including the Vernon paintings. There would be no room for the future purchases necessary to form "a complete collection relating to the history of the art", let alone the sculpture from the British Museum which he believed should be exhibited alongside the pictures. The committee concluded that Pennethorne's designs should be shelved, the Royal Academy turned out, and the gallery rebuilt on the Trafalgar Square site, taking advantage of the possibility of expansion at the back of the building ([53]).

Russell was a member of the 1848 Select Committee, but his Government took no steps to implement its recommendations until March 1850, when he announced that he would ask Parliament for money to enable the Royal Academy to find new accommodation "at the earliest

possible moment" ([54]). In the same month Pennethorne produced a new set of designs (Plates 81, 82) costing an estimated £80,000 ([55]). They incorporate some ideas aired by the writer and critic James Fergusson in a pamphlet of 1849 ([56]), but they are more fully worked out. Detailed drawings were only prepared for the galleries over the barrack site, but a block plan (now lost) was prepared to show how the building could be extended over the workhouse site too if needed. The new building would house more pictures than the existing galleries, even when the Royal Academy's rooms were taken into account, and Pennethorne assumed (probably wrongly) that further extensions would not be needed for another century.

Pennethorne's design is interesting for its great internal magnificence, and because of its explicit debt to foreign sources. The architect had seen the Louvre as well as the great Italian galleries during his travels of the 1820s, and he drew further inspiration, on his own admission, from three of the most celebrated galleries of recent times: the Altes Museum in Berlin by Schinkel, Klenze's Glyptothek in Munich, and his Alte Pinakothek which, with its long range of top-lit galleries on the first floor flanked by smaller side-lit rooms was his "ideal of a good national gallery". Pennethorne's debt to the German buildings was shown most strikingly in the proposed dimensions of the rooms, and in their lighting. He wanted his largest galleries to be

50 ft. wide, so as "to accommodate the crowds of persons who frequent the Galleries, especially in Holidays", and 50 ft. high to the top of the skylights, the same height as the main galleries in the Alte Pinokothek. He had "a strong conviction that galleries should be high, that the light should be admitted through very thick glass, free of colour, so as to be as much diffused as possible; that the gallery should be a mass of light, and not only lit by rays of light" ([57]).

Pennethorne arranged his galleries in a T-shaped block at right angles to the existing rooms ([58]). The lower, side-lit galleries were to be devoted to sculpture from the recently-completed but already overcrowded British Museum. Paintings, including the Mantegna Cartoons from the royal collection, would go upstairs, and there would be a library "... for books on Art - and for illustrated Works - which are usually most necessary for study and the reference of Artists, but far too expensive for Students, and even Professors, to possess". The east and west picture galleries were to be lit from above through glass domes resting on pendentives - a Soaneian motif, although the overall effect would have been very different from the abstract austerity of Soane's Dulwich Gallery. The opulent style of decoration owes something to Cockerell's later interiors like that of St. George's Hall in Liverpool, or the remodelled staircase hall of the Fitzwilliam Museum in Cambridge. This rich and colourful, yet classically disciplined,

manner reappears in all of Pennethorne's later drawings for the gallery, and was eventually realised in a modified form in E.M.Barry's eastern galleries, and in the present main staircase designed by Pennethorne's successor at the Office of Works, Sir John Taylor.

Had it been carried out, Pennethorne's scheme would have transformed the National Gallery at a stroke, and given it a superb set of monumental interiors. But Russell's Government, always short of cash, does not seem to have ever seriously contemplated carrying it out. The removal of the Vernon pictures in 1850 took away the immediate pressure on the building, and the government decided to refer its ultimate fate to another Select Committee. By now a new anxiety had surfaced: air pollution. A waterworks and public baths had been built behind the Gallery in Orange Street, and smoke belched out from the steam engines powering the fountains in Trafalgar Square, only 300 ft. away to the north. To make matters worse, the National Gallery trustees now believed that the "dust and impure vapours" exuded by the three thousand people who used the building each day were causing a film of dirt to be deposited on the pictures. The Gallery was "... frequently crowded by idle persons, who brought children there with them, cracked nuts, and wore jackets which smelt of smoke and dirt. These persons stretched themselves luxuriously on the benches and seemed to have gone in there merely for the purpose of sheltering from the excessive heat of the sun".

With evidence of this sort in mind, the Select Committee dealt the final blow to Pennethorne's scheme by refusing to recommend any new buildings on the site ([59]).

Both Russell and Eastlake were now in favour of moving the collection out of central London. A Royal Commission appointed in 1851 recommended two sites in Kensington Gardens, one to the north of Kensington Palace, and the other adjoining Bayswater Road, slightly to the west of the Serpentine ([60]). A few months later Benjamin Disraeli, Chancellor of the Exchequer in the Derby administration, announced in Parliament that the question of art galleries had "... engaged the attention of that illustrious Prince who had done so much towards elevating public taste for art in the country" ([61]). Prince Albert, one of the guiding spirits behind the hugely successful Great Exhibition, wanted to move the Gallery to the South Kensington estate which was in the process of being acquired out of the profits ([62]). Disraeli and Derby favoured this project too, but their government fell in December 1852, and the Aberdeen administration decided to refer the question to yet another Select Committee which enquired into all aspects of the Gallery's management, including the currently contentious policy of cleaning the pictures ([63]).

Pennethorne's evidence had a considerable influence on the 1853 Committee's recommendations. He pointed out that the barracks and workhouse sites behind the existing National Gallery would be very expensive,

and that even if the building were extended it would still be "unworthy" because of the need to keep to Wilkins's floor levels. He thought that the best site for a new gallery would be in Kensington Gardens, and produced a block plan (Plate 83a) showing an oval-shaped building, 625 ft. long, at the south west corner of the Gardens on the axis of the Round Pond ([64]). No elevations are known to survive, but the shape and dimensions suggest the influence of Harvey Lonsdale Elmes's St. George's Hall, Liverpool, then approaching completion. Another plan shows a building on the site of the Albert Memorial, while a more detailed scheme dated August 1853 (Plate 83b) shows a free-standing gallery measuring 600 ft. by 300 ft. on the part of the Great Exhibition commissioners' site now occupied by the Royal Albert Hall ([65]). A building here would have offered ten times the accommodation available in Trafalgar Square, with the British Museum sculptures on the ground floor, the pictures above, and an art library. In Pennethorne's plan the accommodation is arranged around two courtyards which could be roofed over to create top-lit sculpture courts, somewhat after the fashion of Schinkel's Altes Museum in Berlin. Porticos flank the long sides to south and north, as in the Berlin building, and the corners are punctuated by towers, which could be used for keepers' residences. Pennethorne spoke of a "lofty and rich architectural facade" of stone with porticoes flanking the long sides to north and south,

corner towers, and terraces in the south facing slope, but again no elevations survive.

The committee heard evidence from the leading members of the Victorian art establishment, and even from the German architect Leo von Klenze, who favoured erecting a "picturesque" building in Kensington Gardens. It concluded that the Trafalgar Square building was inadequate and that expansion would be "attended with unusual difficulty and expense". The sites in Kensington Gardens were all rejected because they would involve encroaching on public open space. This left the Commissioners' site and, with a majority of just one vote, the members recommended the appointment of another Royal Commission to discuss the merging of the National Gallery collection with the classical antiquities from the British Museum, so that work on a new building at South Kensington could begin as soon as possible ([66]).

Despite worries about cost, Aberdeen's cabinet decided to go ahead with the move to South Kensington in November 1853, and Pennethorne produced some imaginative schemes for the layout of the whole site ([67]). But with the outbreak of the Crimean War a few months later the scheme was shelved. Meanwhile the National Gallery's collections continued to grow. In 1854 the trustees bought the nucleus of the present collection of early German pictures from the Kruger sale, but they soon found that there was no space to display them ([68]). In March 1855 Sir Charles Eastlake, by now President of the Royal

Academy, was appointed Director. Under his guidance, the Gallery began to systematically build up its holdings of early Italian and Flemish art, and by his death in 1865 he had bought 139 pictures. The collection was further swelled by the bequest of J. M. W. Turner's 283 oil paintings and 19,049 drawings towards the end of 1856 ([69]). The prospect of having to house this extraordinary collection of pictures by England's greatest artist forced Palmerston's government to introduce a Bill in June 1856 to enable the Treasury to mark out a site for the new South Kensington gallery.

The announcement caused an outcry. The proposed move to South Kensington had already aroused strong opposition from critics who who condemned the site for being too remote from central London. Many people disliked the idea of creating a cultural ghetto, and saw the backing of the Prince Consort as evidence of unhealthy and unconstitutional pressure from behind the Throne ([70]). Charles Barry wrote in vain to the Prince Consort in 1853 suggesting that the National Gallery collections should be moved to the British Museum, leaving South Kensington for a "National Gallery of Science" and Trafalgar Square for the Royal Academy and a School of Design ([71]). Backed by the Times, Lord Elcho, a persistant critic of Government policy towards the arts, now suggested setting up a new Royal Commission to investigate the possibility of moving the pictures to Kensington Palace or some other less expensive site ([72]).

After a long debate the Government's proposals passed by a majority of nine, but the slimness of the majority persuaded Palmerston to drop the Bill. In July he agreed to the appointment of another Royal Commission which concluded a year later that the National Gallery should stay in Trafalgar Square, and Wilkins's building be demolished to make way for one "worthy of the British people" ([73]). The classical sculptures would stay at Bloomsbury, where they have remained to the present day.

While the experts were deliberating, the Prime Minister began to explore once more the possibility of enlarging the existing building at Trafalgar Square. He visited it in July 1856, and decided, as a first step, that the central hall should be floored over to form a temporary picture gallery, as Pennethorne had suggested in 1847 ([74]). Sir Benjamin Hall, the Chief Commissioner of Works, reluctantly agreed to appoint Pennethorne as architect, and in August Pennethorne submitted drawings for alterations costing some £10,000 ([75]). The designs do not differ greatly from those he had made ten years earlier. The space under the new floor was to be incorporated into the Royal Academy's sculpture gallery, which would be approached by steps down from a new entrance vestibule. The picture gallery on the first floor would be on the same level as the existing galleries, and would provide space for the new acquisitions.

Palmerston's government did nothing to carry

out Pennethorne's limited plans, let alone the Royal Commission's recommendations which would have involved the expenditure of half a million pounds for the purchase of the barracks and workhouse sites alone ([76]). It was left to the next administration to work out a scheme which was eventually adopted after much vacillation. Lord Derby, the next Prime Minister, was persuaded that the Royal Academy had a "moral claim" to new accommodation at the public expense, and in February 1859, Disraeli announced that the building in Trafalgar Square would be speedily given over to the exclusive occupation of the National Gallery, as Russell had promised nine years earlier ([77]). The Royal Academy was to be granted land at Burlington House, where it could erect a new building at its own expense. Meanwhile the Vernon and Turner pictures, ousted from Marlborough House when it was taken over by the Prince of Wales in 1859, were removed to a new gallery designed by Francis Fowke attached to the recently-established South Kensington Museum ([78]).

Disraeli hoped that his plans would take two years to accomplish. In fact, ten years elapsed. Derby's government fell in June 1859, and the second Palmerston administration was faced with requests from the British Museum to rehouse its natural history collections, now that the antiquities were to remain in Bloomsbury. The Government decided to delay making a final decision on the Burlington House site until the

wider issues had been settled. Plans for the National Gallery to take over the whole of the Trafalgar Square building were therefore shelved once again, and in August 1860 Pennethorne told the Royal Academy council that they would have to stay at Trafalgar Square ([79]). Palmerston and his Chancellor of the Exchequor, Gladstone, had meanwhile resolved to act on plans prepared by Francis Fowke - the architect favoured by the South Kensington establishment - for extending the building to accommodate both institutions, only to change their minds apparently on the grounds of expense ([80]). With this scheme rejected, Pennethorne was asked to send in plans for remodelling the centre at a cost of £15,000, based on his more limited scheme of 1856 ([81]). The money was finally voted by a small majority in August 1860 ([82]).

Pennethorne's earlier plans now had to be shown again to the Royal Academy and National Gallery authorities. They suggested extensive alterations. In 1856 Pennethorne had proposed a semicircular glass-roofed apse to the ground floor sculpture gallery. Under the new arrangement, it became square-ended, with an arched roof, a large window on the north wall, and semicircular apses on the east and west sides ([83]). Work began in September, and the gallery was reopened on 11 May 1861 ([84]).

Visitors entered the remodelled building from the portico through a vestibule. From here two staircases led up to the National Gallery's and the Royal Academy's rooms, and another under the new picture

gallery to the sculpture gallery (Plate 84). Pennethorne's picture gallery was a large and impressive room, 75 ft. by 30 ft., with a roof not unlike that of the Geological Museum, held up by semicircular iron girders (Plate 85). The skylight was of embossed plate glass, and the coves were adorned with motifs made up of palettes, olive branches and bay leaves ([85]). In its construction and decorative character it anticipates the best of the later galleries at Trafalgar Square, as well as others at the Royal Academy and the Tate Gallery. A. H. Layard, the future First Commissioner of Works thought that the gallery "might form a very handsome hall for a railway station", but the correspondent in Building News was unstinting in his praise: "It has rarely, if ever, been our lot to see better work. The materials and workmanship are evidently the best that could be procured, and they constrast strongly with the majority of the buildings which competition has forced upon the public" ([86]). The new gallery was devoted to Italian Renaissance pictures. Although their removal there did not make the overcrowding elsewhere in the building very much less noticeable, the whole collection could now at least be arranged for the first time according to schools and periods, so that, in the words of the Prime Minister, it was "now instructive as well as pleasing to the eye of the connoisseur" ([87]).

Pennethorne's effective but modest extension ameliorated the gallery's lack of space but did not solve

it. There were already 404 pictures at Trafalgar Square in 1860 ([88]), and overcrowding increased in October 1861 with the transfer of the Turner paintings from South Kensington ([89]). Turner had insisted in his will that his pictures should be housed with the rest of the national collection, and a legal judgement stated that the bequest would become invalid if this condition were not adhered to within ten years of the artist's death, a time now rapidly approaching. In July 1861, a House of Lords Select Committee recommended their removal from South Kensington to a new gallery to be built to Pennethorne's designs on iron posts over the barrack yard at Trafalgar Square at a cost of not more than £25,000 ([90]). An undated watercolour (Plate 86), which seems to have been prepared in connection with this design, shows a long and impressive room divided into bays and painted deep red with elaborate Renaissance decoration of the kind which Pennethorne frequently used at this time ([91]). Light enters through a glazed roof held up on a clerestory - a different system from the earlier gallery. Pennethorne insisted that the new gallery could serve as the first stage of a much larger reconstruction which could double the available wall-space, should the government decide to keep the collection at Trafalgar Square.

The Turner gallery was never built. In the summer of 1861 Cowper began to explore a new scheme to remove the National Gallery collection to new premises at

Burlington House, leaving the Trafalgar Square building to the Royal Academy. This was an attractive idea. The government owned the land already, and so would avoid the huge costs involved in a major expansion at Trafalgar Square. It is not clear whether the proposal originated with Pennethorne, but he certainly produced two sets of plans showing how a gallery could be built on the garden behind Colen Campbell's house. In the first (Plate 87), dated August 1861, the new gallery is arranged round a courtyard, with a main entrance from the north in Burlington Gardens. The larger Old Masters were to hang in long galleries on the east and west of the new building, the Vernon and Turner collections in the galleries overlooking the courtyard, and smaller "cabinet pictures" in rooms on either side of octagonal ante-rooms. Another design, from November 1861, shows the new Gallery approached through a grand "public hall" behind the facade of Burlington House. The courtyard is not much larger - 155 ft. by 90 ft. - but there is just one range of galleries on the east and west sides, and the pictures are on two floors, those on the ground floor arranged on screens and lit from the side, and those upstairs in long galleries lit by skylights and domes ([92]). Both designs show Pennethorne's ability to arrange large numbers of public rooms in a coherent manner, and would, if implemented, have given the site a sense of cohesion which it now lacks. They were clearly taken seriously by Cowper, who told the National Gallery

trustees in September that there was now no need to provide new accommodation at Trafalgar Square ([93]).

The proposal to move the collection to Burlington House foundered, like the earlier schemes for South Kensington, because it failed to satisfy public opinion. The National Gallery was a genuinely popular institution and the Trafalgar Square building, for all its aesthetic shortcomings, attracted crowds of visitors. The Royal Academy, on the other hand, was criticised both for its alleged failure to carry out its task of art education properly, and, on more political grounds, because of its supposedly secretive and monopolistic character. The critics argued that it was misusing its privileged position by holding on to its rent-free premises in Trafalgar Square, while the National Gallery was being squeezed out. In response to such criticisms the Government agreed in July 1862 to the appointment of a Royal Commission to investigate all aspects of the Academy's affairs, including the question of where it should be housed ([94]).

In their report, published in July 1863, the Commissioners urged the Government to solve the problem of housing the Royal Academy by building new accommodation for the National Gallery, either behind the existing building, or at Burlington House ([95]). This ambiguous conclusion gave little help to the Government. Cowper therefore decided to persevere with his scheme for moving the National Gallery to Burlington Gardens, and in

February 1864 Banks and Barry - the architects selected in 1859 to design the new premises for the Royal Academy - were asked to prepare new plans which were submitted to the Treasury in April with a request for £152,000 to construct the building ([96]). The design owed something to Pennethorne's preliminary scheme. The galleries were to be on the first floor, and the building approached through Burlington House ([97]). The designs were approved by the National Gallery trustees in May ([98]), but the scheme ran into fierce opposition in the Commons. The objectors were led by a former Chief Commissioner, Lord John Manners, who in populist style poured scorn on Cowper's assertion that a gallery in Burlington Gardens would be less of a "resort for idlers" than the present building: "... the right honourable Gentleman [Cowper] told them that the soldiers went in. Goodness gracious! Why should they not? You could do the people no greater kindness than by giving them access to anything that would educate their taste". He attracted the support of a number of Liberal backbenchers who were "inimical to the Academy or its continuation in the present building" and the scheme was defeated by 52 votes ([99]).

Since Parliament had killed the idea of moving the National Gallery to Burlington House, the government had no alternative but to return to the earlier plan of expanding the premises at Trafalgar Square, and providing accommodation for the Royal Academy at Burlington House. Pennethorne was consulted about both projects, and in

December 1864, he sent Cowper four sketches embodying new ideas for enlarging the Trafalgar Square building. The enlargement, he thought, could taken place in four stages, starting with the centre, proceeding to the workhouse site, and then after many years to the less easily obtainable barrack site and the facade ([100]).

Pennethorne believed that he had been promised the commission for any new extensions at Trafalgar Square in 1858 when Manners asked Banks and Barry to prepare designs for the Burlington House site ([101]). Cowper must have given him further encouragement, for in April 1865 he sent in an estimate for the extended buildings, and in May he submitted plans for an 185 ft.-long room extending north over the eastern part of the barrack yard and supported on iron columns so as not to interfere with the soldiers - an updating of the scheme for the Turner gallery ([102]). The scheme was officially approved in May, and soon afterwards he delivered more plans for a further extension over the workhouse site ([103]).

The plans for building over the barrack yard now ran into opposition from the Army, whose Commander in Chief, the Duke of Cambridge, made it clear that he was "extremely averse" to any proposal which might involve giving up any of the site ([104]). The Army had always been convinced that a substantial presence at Charing Cross was necessary in the event of civil commotion, and the state of the nation, while hardly on the point of revolution, gave the generals no grounds for changing

their opinion. Pennethorne therefore prepared another set of plans showing his new gallery extending north from the Royal Academy's sculpture room in the centre of the building, and over the Guard Room of the barracks, so as not to interfere with the barrack yard ([105]). The new plan had the additional merit of placing the new gallery on the central axis of Wilkins's building, and its positioning was followed by Pennethorne's successor, Sir John Taylor, when he built the present central galleries. In Pennethorne's plans the long central gallery is matched by a similar gallery on the eastern part of the workhouse site. The intervening space is filled by a large central gallery stretching east and west, and six smaller galleries leading off it - a very different solution from the cross-shaped plan adopted by E. M. Barry when he was eventually commissioned to build the present eastern galleries.

Pennethorne's plans would, if executed, have solved the National Gallery's space problems and would have saved many more years of acrimonious discussion. They fell victim, however, to Cowper's wish to placate Parliament. Having forced Palmerston's government to abandon its plans for moving the National Gallery to Burlington House, the Chief Commissioner's critics saw a further opportunity to bring the Office of Works under closer Parliamentary control by demanding a competition. Cowper gave in to pressure, but Pennethorne was not asked to take part in the competition of 1867 and

his final direct involvement with the building was to estimate the costs of purchasing the property for the extension ([106]). The new galleries were eventually designed by the competition winner, E. M. Barry, in 1867. Ten years later, in 1884-7, Sir John Taylor designed the present main staircase and central galleries. They necessitated the demolition of Pennethorne's gallery of 1860-1, and today nothing remains of his work in the building.

Pennethorne's long and frustrating involvement with the National Gallery illustrates the difficulty of effective government architectural patronage in the mid 19th century. The need for more accommodation was universally recognised, and Pennethorne produced a series of imaginative schemes for new buildings on three different sites - Trafalgar Square, South Kensington and Burlington House. But changes of government, unstable Parliamentary majorities, and above all the need to placate a public opinion suspicious of grand gestures, combined to smother them all. The subsequent history of the building in Trafalgar Square has been no less fraught with vexations, changes of plans, grandiose schemes abandoned, and mediocre compromises adopted in their place. Wilkins's facade still fails to dominate what Peel called the "finest site in Europe". Few of the galleries measure up to the splendour of their contents, with the notable exception of the recently-redecorated E.M.Barry rooms. Yet the building enjoys the affections

of countless people. The English have often preferred the homely and picturesque to the elevated and formal in their buildings, even at the expense of opting for the second rate. The National Gallery is an embodiment of both the virtues and the vices of this aspect of our public taste.

THE SOUTH KENSINGTON MUSEUM

South Kensington - today London's main museum district - was an offshoot of the Great Exhibition of 1851. Backed by Prince Albert, the Exhibition's promoters decided to use the profits to purchase land to the south of Hyde Park which could be turned into a centre of cultural and scientific endeavour. Accommodation could be provided for the National Gallery, a new Museum of Manufacturing, and for the various Government-supported learned and scientific societies which were in the process of being forced out of Somerset House. Lord Derby's ministry was sympathetic enough to the project to move in December 1852 for a vote of £150,000 to match the Exhibition Commissioners' funds, and the purchase was completed early in 1853 ([107]).

Pennethorne surveyed the estate on the Government's behalf in 1851, and in the autumn of 1853, soon after delivering block plans for a new National Gallery in Kensington Gardens, he prepared some detailed schemes for the layout of the estate. Prince Albert had already

produced a plan for the site and in the wake of the report of a Select Committee which had recommended moving the National Gallery from Trafalgar Square to South Kensington it was sent to Gladstone, Chancellor of the Exchequor in the new Aberdeen administration. Gladstone thought that more buildings could be fitted into the site than Albert had envisaged, and Pennethorne, along with other architects, was instructed to prepare plans showing how this ideal could be achieved ([108]).

His designs all envisaged the main buildings being placed on either side of an axis stretching from the site of the present Albert Hall to that of the Natural History Museum. In one scheme, dating from October 1853, the National Gallery occupies the Albert Hall site, with the land to the south in the form of a large circular garden surrounded by formal plantations. To the south, there are two buildings around courtyards on either side of a large colonnaded open space like the Palais Royale in Paris (Plate 88). A variant of this plan shows the two southern buildings aligned at right angles to what is now Cromwell Road, with another building to the south of the road, and a large Durandesque building with a circular central hall and two internal courtyards on the site of the present Victoria and Albert Museum (Plate 89). In another drawing the National Gallery is placed at right angles to Kensington Gore, with a 30 ft. high terrace to the south overlooking gardens which are flanked by oval-shaped buildings, one of the housing a "College of

Industrial Arts and Science", the other "Houses of Societies of Professional Men". To the south of the gardens in a "Museum of Industrial Arts and Patented Inventions" - an early scheme for what was eventually to become the Science Museum. A fourth scheme shows what is presumably the National Gallery on the site of the present Royal College of Music, and there is a large circular building south of Cromwell Road.

These plans, taken together, represent Pennethorne's beau-ideal of a setting for a national centre of art and culture. His South Kensington would have been spacious, formal, lucid and classical. These ideals appealed more strongly to Continental than to English minds, and for that reason his schemes stood very little chance of ever being accepted by politicians and voters who, then as now, were moved by pragmatism, a suspicion of the grand manner, and a dislike of spending large sums of public money on comprehensive schemes of planning. The proposals were dropped - if they were ever seriously considered - at the end of 1853, and the National Gallery scheme was finally abandoned in 1856.

The initiative now passed to the Department of Practical Art, the sub-department of the Board of Trade which managed the Government's School of Design, set up in 1837. The Schools's superintendent was the energetic bureaucratic entrepreneur Henry Cole, one of the promoters of the Great Exhibition. He and his ally Richard Redgrave wanted to move the School and its

growing collections of decorative art objects out of their current home, Marlborough House, and in 1854 they produced their own plans for the South Kensington estate (109). It soon became obvious that the Government was not going to provide any money for new buildings, so in 1855 Cole decided, with Prince Albert's backing, to place the School in Brompton Park House, to the east of Exhibition Road - the site of the present Victoria and Albert Museum. "Temporary galleries" for the museum collections could be erected close by. . The site was adjacent to the main estate, but its development need not interfere with any grandiose plans which might be carried out there at some future date. Prince Albert asked the German architect Gottfried Semper to make plans and a model of the temporary galleries "somewhat on the plan of the Palais Royale", but these proposals were finally rejected by Palmerston's government, backed by a Parliament still highly suspicious of foreign machinations among the market gardens of Brompton. With the Crimean war still in progress, and parsimony once again firmly in the ascendant, Cole and his associates reluctantly agreed to place their collections in a prefabricated "iron house" - the notorious "Brompton Boilers" - designed by Charles Young for only £15,000 (110).

Work on the temporary museum galleries began early in 1856, but it soon became clear that a further building would be needed to link them to Brompton Park House, and

at the same time to provide a lecture room, library and offices, without which the public educational functions of the new institution could not be carried on. The "Boilers" had no sooner become visible than they attracted widespread abuse and ridicule and, with the public image of the museum in mind, museum officials, backed by Prince Albert, decided to ask the Office of Works for a design ([111]). The new "junction building" was, like the museum itself, to be cheap, functional and temporary and, as such, not thought worthy of being thrown open to competition. Pennethorne was therefore asked to provide designs which could be executed within the £10,000 recently voted by Parliament. Work proceeded smoothly, and both the new museum and the "junction building" were ready by the end of the year ([112]).

Pennethorne's building was a simple, one-storied brick structure, with low-pitched roofs and arched windows linked by corridors to the "Boilers" and Brompton Park House (Plate 90). The most important feature was a circular lecture theatre forty-two and a half feet in diameter, which stood on the site of the present Victoria and Albert Museum quadrangle ([113]). A building constructed within such severe cost limits,and only expected to last for ten years, could hardly be expected to display any great felicity of design. Yet a correspondent in the Builder thought that the exterior had "some degree of effect", and praised the construction of the lecture room roof, which was "framed without ties,

the principals meeting at the apex" ([114]).

With the completion of his new building, Pennethorne's role at South Kensington became a purely advisory one. The Department of Science and Art, as the Department of Practical Art had now become, took complete control of the site in 1858, and, in the continued absence of an overall plan for the Commissioners' estate, began to construct permanent buildings to the designs of Cole's new protégé Captain Francis Fowke of the Royal Engineers. These buildings form the nucleus of the present Victoria and Albert Museum. Pennethorne's lecture room was demolished in 1865 to make way for an extension of Fowke's galleries, and the rest of his block disappeared in 1878 when the splendidly polychromatic quadrangle was finally completed ([115]).

The rest of the Commissioners' site was developed in a manner very different from that envisaged by Pennethorne in 1853. The central area was leased to the Royal Horticultural Society for gardens, and the south, fronting Cromwell Road, set aside for the International Exhibition of 1862 and subsequently for a new structure to house the Natural History collections of the British Museum. Fowke designed the temporary exhibition building and later won the Natural History Museum competition, for which Pennethorne was an assessor. He died before work could begin, and the present structure was built to the design of Alfred Waterhouse ([116]). After the death of Prince Albert the northern part of the site was given

over to the Albert Hall, but although Pennethorne prepared designs they were not implemented ([117]). The Horticultural Gardens site was eventually covered with miscellaneous buildings of a cultural nature including the now-demolished Imperial Institute.

1. J. S. Flett, The First Hundred Years of the Geological Survey (1937), pp.33-6; Port, Houses of Parliament, p.97.
2. Works 17/7/1. f.11; Kings Works vi., p.460.
3. Flett, p.51.
4. Works 17/7/1, ff.6-7.
5. Works 3/6, p.6; Geological Museum Library, MS. GSM 1/13.
6. T1/6693A/3774.
7. Geol.Mus.Libr. MS GSM 1/13; Works 17/7/1, ff.8-14.
8. Works 17/7/1; ff.14-18, 72-3.
9. ibid. f.26.
10. Works 17/7/1, f.75; Cres 19/32, p.271; Works 3/6, pp.249-253.
11. Works 17/7/1, ff.76-80; PRO 8/5, p.6.
12. Geol. Mus. Libr. MS GS1/210.
13. He originally wanted to include specimens of English

and Irish marble: Builder 27 March 1847, p.141.

14. T1/5556A/8614; information kindly supplied by Dr. David Blissett.

15. Geol.Mus.Libr. MS GS1/210. A note on the original design for the Jermyn Street facade, in a different hand from Pennethorne's, says that "[the] construction will be greatly improved and the cost lessened by a Parapet as shewn in blue".

16. T1/5556A/8614; T25/19, p.401; Cres 19/34, p.84; Works 17/7/1, f.81.

17. PRO 86, pp.7-23; T1/5556A/8614; Kings Works vi p.461.

18. They are described in detail in Survey of London xxix p.274.

19. Flett, p.34.

20. Civil Engineer and Architects' Journal, x (1847) p.337.

21. W. Armstrong, Alfred Stevens, (1881), p.9.

22. Victoria and Albert Museum, 8068. This scheme seems to have preceded or replaced one in which the motif was one of Gorgons' heads: Builder 18 Nov. 1848, p.558.

23. K. R. Towndrow, Alfred Stevens (1939), pp.78-9.

24. Geol.Mus.Libr. MS IGS 1/684.

25. T1/5556A/8614; Geol.Mus.Libr. MS. GSM 1/13, no. 46.

26. PRO 8/5, p.21; Geol. Mus. Libr. GSM 1/210.

27. Walford, Old and New London iii.

p.46. The museum has been destroyed.

28. N. Pevsner, Pioneers of Modern Design, (1960)

pp.118-9; A History of Building Types (1976), p.264

29. Builder 18 Nov. 1848, p.558; Hobhouse, Lost London, p.128.

30. Builder 25 Oct. 1848, p.522. The heating and ventilation system was designed by a Mr. Sylvester. The lecture room was illustrated in ILN 21 Feb.1852, p.161.

31. For the "servicing" of the Reform Club, see D. Cruickshank (ed), Timeless Architecture (1986).

32. Flett, pp.190-1.

33. King's Works, vi, pp. 462-3. See also R. W. Liscombe, William Wilkins (1980), pp.180-4.

34. S. C. Hutchison, History of Royal Academy 1768-1968 (1968), p.103. Other critical comments are recorded in Liscombe, op. cit. p.193.

35. C. Holmes & C. H. Baker, The Making of the National Gallery (1924), pp.52-4.

36. e.g. Companion to the Almanac (1838), pp.221-3.

37. Quarterly Rev. lviii (1837), p.79.

38. Hutchison, Hist. of the Royal Academy, p.103.

39. Rep. Sel. Cttee. on Arts & Manufactures, PP (1836) ix, plan facing p.98.

40. ibid. See also Barry, Life of Barry pp.274-5; W. H. Leeds, Public Buildings of London, p.64; Civil Engineer & Architects' Journal (1837-8), pp.248-9. Photocopies of some of Barry's rebuilding schemes are preserved in the National Gallery library.

41. Works 17/13/7, f.2; Cres. 19/29, p.114; Evidence to Sel. Cttee. on National Gallery, 1848, reprinted in Rep.

Sel. Cttee. on National Gallery, PP (1850) xv, p.76. The sketches have disappeared.

42. J. Steegman, Victorian Taste, pp.6-7.

43. C. Eastlake, "The National Gallery: Observations on the unfitness of the present building for its purpose" (1845); Hansard, cxlii, 27 June 1856, 2109.

44. Hansard, lxxxi, 27 June 1845, 1338.

45. C. S. Parker, Sir Robert Peel, iii (1899), pp.181-2.

46. Works 34/888, undated; Kings Works vi, p.371; Builder 11 Nov. 1848, p.544. The scheme would have entailed the demolition not only of much of the Tudor palace, but also of Inigo Jones's Queens Chapel.

47. These pictures are now in the Victoria & Albert Museum.

48. Holmes & Baker, p.54.

49. Minutes of National Gallery Board of Trustees, i, pp.352-3; Works 2/6, pp. 164-5.

50. Works 2/6, p.43; Works 17/13/7. ff. 3-7; PP 1850 xv., pp.76-7.

51. Works 2/6, pp.168-170.

52. T 25/19, p.434; Works 1/32, p.175; Works 2/6, pp.313-4, 350, 422; Works 17/13/8, ff.9, 19-20; ILN 4 Nov. 1848, p.184; Holmes & Baker, p.55.

53. PP 1850 xv, p. iii, 77-87.

54. Hansard cix, 25 March 1850, 1368-9; Hutchison, Hist. of the Royal Academy, p.113.

55. RIBA MS Pe J. 1/1. Quotations in the next two paragraphs are taken from this source except where

otherwise stated.

56. J. Fergusson, Observations on the British Museum, National Gallery and the National Record Office, With Suggestions for their Improvement (1849). He wanted to turn the British Museum into a national library and record office, to move the antiquities to Trafalgar Square, and to construct a new building for the natural history collections. See J. M. Crook, The British Museum, pp.170-2.

57. PP 1850 xv., p.3.

58. RIBA drawings collection, W3/1/1-2.

59. Hansard cxii, 1 July 1850, 814; PP 1850 xv, pp. iv, 4. The comments of the National Gallery trustees are printed as an Appendix to the Commons Select Committee report.

60. ibid. pp. 25-6; T1/566313/15010; Rep. Commrs. for Considering Site for new National Gallery, PP 1851, xxii [642] p.1.

61. Hansard, cxxii, 4 June 1852, 10; H. Hobhouse, Prince Albert p.76.

62. Survey of London xxxviii, pp.57-8.

63. Hansard, cxxiii, 6 Dec. 1852, 1020-1025; 8 March 1853, 1312.

64. Rep. Sel. Cttee. on National Gallery, PP 1852-3, xxxv [867] pp.625, 724-6.

65. V & A Guard Book, no. 2506.

66. PP 1852-3, pp. xv-xviii.

67. P. Guedella, The Queen and Mr. Gladstone i, (1933),

p.107, Gladstone to Albert, 16 Nov. 1853. The plans are discussed below in the section on South Kensington.

68. Minutes, vol. 2, p. 300. Some of the pictures were later found to be fakes.

69. A Blunt and M. Whinney, The Nation's Pictures (1950); D. Robertson, Sir Charles Eastlake and the Victorian Art World (Princeton, 1978), pp.78-80, 134-8, etc.; A. J. Finberg, The Life of J. M. W. Turner R.A, 2nd ed. (Oxford, 1961), pp.441-5.

70. Hansard cxxxiv, 3 & 7 July 1854, 1062, 1406-8.

71. A. Barry, Life of Barry, pp.279, 358; J. M. Crook, The British Museum, pp.176-7. Barry had prepared a new scheme for rebuilding at Trafalgar Square in 1852.

72. PRO 30/22/13B f.132; Times, 21 June 1856, p.9, col.1; 27 June, p.9, cols. 4-5; 28 June, p.9, col.4; Hansard, cxlii, 12 June 1856, 1394, 2097-2106, 2110-2121, 2154.

73. Hansard cxliii, 30 June and 8 July 1856, 13, 510; PP 1857 (sess.2) xxiv. pp.iii-vi.

74. Building News, 17 Aug. 1860, pp.648-9. A proposal to sell the building to a hotel company was rejected: T 25/22, p.58.

75. Broadlands Papers, GC/HA/30; Works 17/10/2, f.1; Works 33/1333.

76. Works 1/55, p.303; T26/2, p.146; Works 2/18, p. 172; PP 1857-8 xxxiv [28], pp.1-2.

77. Sandby, History of the Royal Academy, pp.256-7; Hutchison, History of the Royal Academy, p.122

78. Hansard, cliii, 8 Feb. 1859, 181-4. The gallery, which still survives as part of the V & A, also housed the Sheepshanks collection of early-19th-century paintings.

79. Robertson, p.198, quoting R.A. minutes, 23, 25 August 1860.

80. Works 1/66, p.50; Builder, 2 Apr. 1859, p.235; BN 1 Apr. 1859, pp.299-300; PP 1860 xl [424] pp. 4-5, 9 June 1860; R. Shannon, Gladstone i (1982), p. 423; Hansard clxiv, 16 July 1861, 1011.

81. Works 2/23, p.199; Works 17/10/2, ff.15-17.

82. Hansard clx, 14 Aug.1860, 1316, 1532-1545.

83. Minutes of Trustees, vol. 4, pp. 239-242. The effect of the alterations on the ground plan can be seen by comparing Works 33/1333 (the original plan), with Works 33/1338 (the revised version). See also Works 33/1354-5.

84. Works 1/66, p.259; Works 17/10/1, f.45v; Works 17/10/2, ff.45-6; Works 33/1338-9; Minutes of Trustees vol. 4, pp. 242, 249-251. The final cost was £16,704..

85. Works 33/1343-1386 (working drawings); Builder 6 Apr. 1861, pp.231-3; BN 8 Mch. 1861, pp.211-2.

86. Hansard, clxiv, 16 July 1861, 1016; BN 19 July 1861, p.598.

87. Hansard, clxiv, col 1015; J. C. Horsley, Recollections of a Royal Academician (1903), pp.285-6, says that the gallery was used for a period to house the pictures from the Turner bequest. I owe this reference

to Dr. Selby Whitttingham.

88. Minutes of Trustees, vol. 4, pp.278-9.

89. 82 of the pictures were housed in the West Room: Finberg, Turner, pp.450-1. They were removed, with a few exceptions, to the Tate Gallery in 1910.

90. House of Lords Sess. Papers 1861 v [201], pp.iv, 25-9; Broadlands MSS, WFC/CC/2, 14 Aug. 1861; Finberg, Turner, pp.448-9.

91. Sold at Christies 14 June 1983, cat. no. 136.

92. Works 30 /529-30.

93. Minutes of Trustees, pp. 274-5.

94. Hansard clxviii, 21 July 1862, 602-3; Times 23 July 1862, p.9,col.1.

95. Rep. of Commrs. into the present position of the Royal Academy, PP 1863 xxvii [3205], pp.xxi-xxiii.

96. T1/6481A/6761; Works 2/28, p.131.

97. BN 19 Feb.1864, p. 142; Builder 14 May 1864, p. 357.

98. Minutes of Trustees, vol. 4, pp. 322, 328-9.

99. Hansard, clxxv, 6 June 1864, 1301-1316; Builder, 11 June 1864, p.431.

100. Works 17/13/12, ff. 1-2. The sketches have not survived.

101. Works 1/78, p.116.

102. Works 2/29, p.90; Works 17/13/12, ff. 5, 7-9.

103. T1/6693A/3774; T26/5, p.15; Works 2/31, p.8.

104. Broadlands Papers WFC/A/2, 26 April 1865.

105. Works 17/13/12, f.11; /15, ff.13-14; Works 33/1335.

106. T1/6693A/3774; Works 1/85, p.264. For the competition, see H. Grubert, "The 1866 Competition for a new National Gallery" (M.A. thesis, Courtauld Institute of Art, University of London, 1967).

107. J. Physick, The V & A: the History of the Building, (Oxford 1982), pp.19-21.

108. Survey of London xxxviii, pp. 57-8. Other designs were prepared by C. R. Cockerell and T. L. Donaldson: Add MS 44742, ff.170-183. Contemporary photographs of the various schemes are in Victoria & Albert Museum Guard Books, nos. 2506-8, 2512-3.

109. V & A Guard Book, no.2510, 20 Feb. 1854.

110. Cole, 50 Years of Public Work , pp.320-3; Physick, pp.22-3.

111. Physick, p.29.

112. Works, 1/50, p.317; /51, pp.155-6.

113. Physick, pp.28-9; Survey of London xxxviii, pp.99-100. There is an illustration of the building by A. Stannus dated 1863 in the V & A print room, 2815. A.L.

114. Builder 24 Jan. 1857, p.45.

115. Physick, pp.106, 172.

116. Works 17/16/1; M. Girouard, Alfred Waterhouse and the Natural History Museum (1981), pp.7-12.

117. See Chapter 9.

CHAPTER 7 (Footnotes on p.365)

GOVERNMENT OFFICES

Mid-19th-century British governments, for all their protestations of devotion to the principles of *laissez-faire* and economy, were drawn inexorably into closer involvement with the lives of the people. The civil service grew slowly but steadily; by 1871 there were more than twice as many civil servants as there had been at the end of the Napoleonic Wars ([1]). Departments and sub-departments proliferated. These extra civil servants had to be housed somewhere, and it was the responsibility of the Office of Works to find the accommodation.

The easiest solution was to lease extra accommodation in the houses belonging to the Crown Estate in and around Whitehall. By 1844 the existing purpose-built offices were judged to be full to bursting, and £3,000 a year was being spent on rents ([2]). This course of action offended the increasingly vocal apostles of administrative efficiency, who argued that the dispersal of offices led to delays in transacting business ([3]). The Northcote-Trevelyan report of 1854 gave powerful ammunition to those who thought the government offices should be "concentrated" in large new buildings. With the inefficiencies of the Crimean War in mind, one commentator asked: "Who knows but if the heads of the War

Department and Treasury had been accustomed to communicate personally more than once a year, that all the disasters of the Crimea would not have been avoided? ... Non-concentration has jeopardised our honour and slain thousands" ([4]). The concentration of offices would further enable Whitehall and its surroundings to be rebuilt in a manner commensurate with its role as seat of government of the richest and most powerful nation in the world.

It was against this background that Pennethorne became involved in plans for providing new official accommodation. His efforts embraced four major departments - the Ordnance Office (later part of the War Office), the Inland Revenue, the Foreign Office, and the Admiralty. He also supplied new premises for the Duchy of Cornwall, which administered the estates settled upon the Prince of Wales. These projects gave Pennethorne the opportunity to design some of his most impressive buildings. They will be discussed here in the order in which they were first commissioned.

THE ORDNANCE OFFICE

Military administration in Britain before the mid 19th century presented such a chaotic appearance that it seems surprising that the country ever won a war. ~~Army~~ Army business was transacted through a number of departments and boards scattered around the capital. Of these the most important was the Board of Ordnance which traced its origins back to the 15th century - 200 years earlier than the standing army ([5]).

The Ordnance officials controlled the supply of weapons, barracks and fortifications to the British army. For some time they were all housed in the Tower of London, but an increase in staff during the Napoleonic Wars led in 1806 to the purchase of the Crown lease of the 18th-century Cumberland House (no. 86 Pall Mall), for the "superior officers" ([6]). The wings of Cumberland House (nos. 85 and 87 Pall Mall), were turned into official residences for the permanent civil servants, and two plain 18th-century houses to the west, nos. 83-4, were occupied three years later for use by the engineers' and barrack departments (Plates 91, 92b). But by the 1840s clerks were still working in the Tower - a division that, in the days before the telephone, could not fail to cause delays ([7]).

The inefficiencies of the Ordnance department were seized upon by reforming politicians eager to reduce bureaucratic waste. The question became urgent early in

1846, when the condition of two of the Pall Mall buildings started to cause concern. The foundations were found to be "much decayed", and the Board's Secretary asked the Treasury about the possibility of pulling the houses down and replacing them by "eligible offices" which could house the whole establishment. Further progress was delayed by the Corn Law crisis and the fall of Peel's government, but, soon after taking office as First Commissioner, Lord Morpeth asked Pennethorne for a report. His view was that "concentration" could best be achieved by building a four-storied block of "large and good offices" on the site of nos. 83-4, Pall Mall, at an estimated cost of £15,500. A cheaper alternative solution would be to add an extra storey to Cumberland House, leaving the older houses untouched. The Treasury opted for Pennethorne's first proposal, probably because it promised more space ([8]).

The construction of the new building was delayed for three years, because Russell's government did not want to seek funds from a Parliament where there were many members only too eager to attack what they saw as excessive spending on the military departments. But in 1849 the inefficiency of the existing arrangements in the Ordnance Department came under severe scrutiny once more, and a Select Committee reported that the division of business between the Tower and Pall Mall "... renders it difficult to obtain information as to current transactions, delays business, and seriously interferes

with the prompt discharge of official duties" ([9]). Pennethorne now estimated the total cost of the necessary alterations and additions at £17,000, together with £5000 for fittings. In February 1850 the Government finally agreed to ask Parliament for the money, having abandoned an earlier idea of financing the building out of the Land Revenues of the Crown ([10]). Building began in September, and, after some haggling with the official referees appointed under the Metropolitan Building Act, the new office was completed in the summer of 1851 ([11]).

Pennethorne housed the Ordnance officials in a 3-bay Italianate palazzo of the sort which he had just provided for the Geological Museum ([12]). Sir John Soane had introduced a version of this style into official architecture in his State Paper Office of 1830-4, and the proximity of the great Pall Mall club houses made the choice of style almost inevitable. The severe facade - appropriate perhaps for a Government building devoted to military administration - is evidence of Pennethorne's refined and scholarly manner at this stage of his career (Plate 92a).

The proportions were to some extent determined by the need to make the floor levels conform with those of Cumberland House next door. There was a lower ground floor over a semi-basement, two main floors above with high ceilings, and a lower storey at the top, under a low-pitched roof of the usual Italian type. There was little external adornment, and as the building was

entered through the existing Ordnance buildings, there was no need for a doorway. As in the Geological Museum, the corners were emphasised with heavy quoins, and there was a bold cornice. The floor-levels were marked by prominent string-courses, while the windows, with their deeply moulded architraves of Anston stone, gave the impression of being punched out of the plain brick wall-surface. The Florentine effect owed much to the row of lamp-holders at ground-floor level and the round-headed windows behind, features that must have loomed especially large when seen from street-level ([13]).

With the new building completed, Pennethorne was asked in May 1852 to produce an estimate for alterations to the former Cumberland House made necessary by an increase in staff ([14]). Work on adapting the east wing was authorised in June, and was "advancing rapidly" in the following month ([15]). The work on the centre was carried out during the summer of 1853, and further minor alterations to the exterior were proposed at the suggestion of the Royal Engineers, though without Pennethorne's involvement, in 1854 ([16]). They did not greatly affect the external appearance of the building, which survived until 1911 when both it and Pennethorne's new wing were demolished to make way for the Royal Automobile Club.

THE INLAND REVENUE OFFICES AT SOMERSET HOUSE

Somerset House was the first Government office building in London to be conceived and executed on a monumental scale. Begun in 1776 to the design of Sir William Chambers, its construction owed much to George III's wish to provide a suitable home for the newly-founded Royal Academy and for the learned societies which enjoyed royal support. The main impetus, though, came from the growing realisation that efficiency was promoted by the concentration of public offices in a single building. By the 1840s still more space was needed, and official minds began to consider the possibility of extending Chambers's building to house the newly-created Inland Revenue department ([17]).

The decision to house the Inland Revenue at Somerset House was taken after a series of administrative changes had created the department in something like its modern form. The Whigs united the two departments responsible for direct taxation, the Stamp Office and the Tax Commission, into a single Department of Stamps and Taxes in 1834. When the Tories came to power in 1841, Peel inaugurated an ambitious fiscal policy whose intention was to shift the fiscal burden from indirect to direct taxes, an object which was achieved by the lifting of a multitude of revenue duties and the revival of the income tax. Finally, in 1849, Russell's government joined the Excise Department with the now much more important

Department of Stamps and Taxes to form the new Inland Revenue department, responsible for all revenue except that derived from external customs duties. The Stamp Office already occupied a basement at the corner of the south and east wings of Chambers's building, and it was calculated that the cost of a new edifice to house the whole establishment could be defrayed from the sale of the old Excise Office buildings in Broad Street in the City ([18]). Administrative efficiency would thus be achieved without any strain on the public finances - a prospect to gladden the heart of any Benthamite ([19]).

The decision to embark on a major building scheme at Somerset House occurred in the last years of the combined office of Woods and Works, when governments were still relatively immune from the virus of architectural competitions. Pennethorne was first asked to prepare a design by Lord Morpeth in 1849, and by August 1851, after much consultation with the Inland Revenue officials, they were said to be "... far matured" ([20]). From the very beginning, his appointment was taken as a matter of course.

Somerset House, as designed by Sir William Chambers, consisted of four ranges built around a quadrangle between the Strand and the Thames (Plate 93). The north range, fronting the Strand, contained a suite of superbly decorated rooms on the piano nobile. They originally housed the Royal Academy, but were handed over to the Government-financed Department of Practical Art when the

Academy moved to Trafalgar Square in 1837. Other rooms in the north range were occupied in the 1840s by various Government departments and chartered institutions, among them the University of London, which in its infant years required only minimal office space. The east wing contained, inter alia, the offices of the Audit Department and the Duchy of Cornwall, while the south and west wings were given over to three Admiralty departments for which there was not adequate space in Thomas Ripley's 18th-century building in Whitehall ([21]). The main external facades faced the Strand and the River Thames.

The space to the east of Somerset House was filled in 1829 by Sir Robert Smirke's King's College, but to the west there was only a free-standing row of nine plain brick terraced houses originally intended for Admiralty officials. The building of Waterloo Bridge in 1813 exposed the backs of these houses to the public gaze ([22]). Pennethorne's new building was intended to fill the space between the houses and Wellington Place, the road leading north from the bridge, with a monumental structure worthy of one of the main approaches to the capital (Plates 94, 95).

Work was delayed by difficulties in arranging accommodation for the various public departments occupying the former Admiralty house ([23]). One of these bodies, the Poor Law Board, moved to the 18th-century Gwydir House, in Whitehall, in 1851, but most of the

others had to be moved to the north wing of Somerset House where space was found by the removal of the Schools of Design to Marlborough House ([24]). These arrangements took some time to organise, and it was not until the end of 1850 that the Government was in a position to begin acquiring the rest of the ground on which the new building was to go. The site was part of the Duchy of Lancaster's Savoy estate, and in December the Treasury agreed that it should be held by the Inland Revenue Board on a 99-year building lease, the Board paying the Duchy a lump sum out of the proceeds of the sale of the old Excise premises in the City ([25]).

Formal approval for the new building was finally granted in April 1851, and in June Pennethorne was asked to work out detailed plans with the Inland Revenue officials ([26]). Two months later he sent in nine drawings, and suggested that the building should be constructed in three stages, starting from the south, the rest following as the various Government departments vacated their old premises ([27]). The total cost was estimated at £60,000, an estimate that was in the event exceeded by more than £20,000 ([28]). Work on the foundations of the south wing, which involved digging deep piles into the Thames, was in progress early in December, and later in the month Pennethorne produced a final design for the facade of the whole building ([29]). This design was finally approved by the Treasury in January 1852 ([30]).

The Inland Revenue's requirements were relatively straightforward: office space above street level, including a Court of Appeal, and premises for the Stamping Department in the basements. There were not to be any elaborate rooms or grand internal spaces. The new building was created by extending the existing Admiralty houses forwards to the west, preserving their east-facing facades and front rooms, and building a new frontage to Wellington Place. When the building was first conceived in 1849, Pennethorne seems to have envisaged a relatively shallow structure with two ranges of rooms separated by a corridor, but the Inland Revenue insisted on more accommodation, and in the revised design of 1851 he introduced the wings which are such important features of the building in its present form ([31]). He also enlarged the upper floor windows, introduced an attic storey, and, at the instigation of the Chancellor of the Exchequer, Charles Wood, carried the entablature around the whole building ([32]).

Emblematic sculptures were to adorn the main facades, as in Chambers's building. Pennethorne and Lord Morpeth agreed that they "should be first rate works of Art like the Sculpture on the other fronts - which were executed by Bacon, Nollekins [sic] and others of the first men of that day". The central frontispiece was to contain a seated figure on top of the pediment, sea-horses or other figures on the acroteria, and the royal arms and supporters within; underneath there were to be

six 7-ft. high figures, and two more figures over the entrance. Pennethorne first wanted the commission to be given to the younger Richard Westmacott, but the Treasury officials insisted on holding a limited competition, which was won by William Theed, one of the Royal Family's favourite sculptors ([33]). His six figures under the pediment represent the chief manufacturing towns, with Britannia at the apex, and History and Fame over the entrance door ([34]). As an economy measure, the sculptures on the west facades of the wings were copied from those in comparable parts of the Chambers building, and in March 1853 Pennethorne suggested that this work might be done from "squeezes" taken from the originals ([35]).

While harmonising with the existing building, the facade of the new range was designed as a composition in its own right (Plate 96). The composition, though, is more successful than Chambers's main front to the river, which suffers from excessive length in relation to its height, and from the lack of a sufficiently dominating central feature. Pennethorne's facade of 350 ft. consists of a central block with a bold projecting frontispiece and pediment, and two wings or pavilions projecting from the main facade - an essentially Palladian arrangement which produces a dramatic effect when seen, as it always is, from an oblique angle. And by introducting an attic storey he improved the relationship between width and height.

The effect of the new facade owes much to the

interplay of light and shade over sculptured surfaces of Portland stone. Pennethorne fortunately chose to reproduce Chambers's refined detailing drawn from English Palladian and French 18th-century sources. The focal points at the centre and on the street fronts of the wings are emphasised by free-standing colonnades of the Composite order which echo those in the courtyard and in Chambers's river front. But there are subtle differences, like the introduction of oval medallions over the first floor windows on the street fronts of the wings, and the placing of statuary over the projecting central frontispiece (Plate 97a). These devices enhance the French character of the building. Pennethorne allowed himself another flight of fancy in the porch at the north end of the north wing, where garlanded Ionic columns are interrupted by heavy square blocks of masonry (Plate 97b).

Internally, Pennethorne successfully reconciled the floor levels at the back of the building with those at the front, where the heights of rooms needed to conform to the Renaissance standards of proportion adopted by Chambers. The new building, like others of its type and date, contains a great deal of structural ironwork, but, except for the use of some iron posts on the basement floors and in the Court of Appeal, none of it is visible. The floors are supported on iron girders, hidden by plaster mouldings, but the rooms (with the exception of those at the front of each wing) are no larger than those

in the Chambers building, and the use of iron was doubtless dictated by economy and expediency rather than any wish on Pennethorne's part to exploit its structural potential as he had at the Geological Museum. The basement stories, containing the stamping departments, were more of a structural tour de force, with two floors divided by iron columns, the upper one lit by a skylight in the courtyard in the entrance forecourt ([36]). These rooms were entered from underneath the old Admiralty houses in Somerset Place.

Construction proceeded by fits and starts over a period of seven years. The south wing was put out to tender in February 1852, but the lowest estimate, from Messrs. Kelk, came to £19,573, over £4000 more than Pennethorne had envisaged ([37]). The architect explained the discrepancy by pointing to an increase in the price of bricks since his original estimate was made, and the need to incorporate the new Stamping Department under the entrance courtyard. This explanation was received with some scepticism, but Kelk, a "responsible and superior builder", offered to contract for the whole building at the originally estimated sum of £53,000, starting work on the north and south wings simultaneously. This proposal was rejected by Lord Seymour, the First Commissioner of Works, on the grounds that it did not offer sufficient security to the Government, and in June a contract was signed with Kelk for the south wing only ([38]).

Further progress was halted by the refusal of some

of the Government departments occupying the old Admiralty houses to quit their premises until they had been adequately rehoused. One of the most important departments was that of the Registrar General of Births, Deaths and Marriages, and Pennethorne warned in October 1852 that if his premises were not taken over soon, work would cease. In May 1853, with the Inland Revenue Board about to sell their offices in the City, Kelk told Pennethorne that he had had to take down his scaffolding and that he would demand compensation from the Office of Works. He later claimed a loss of over £4500 ([39]). Kelk's tender for the north wing was accepted in September after a promise from the Registrar General to take over the rooms in the Strand front formerly occupied by the Schools of Design, but by the spring of 1854 he had still not gone ([40]). The work was finally finished in July 1855, when a contract for the central range was signed with Kelk. This block took over a year to build, and in November 1856 another contract was signed with Kelk to construct the two subterranean floors under the entrance courtyard ([41]). With the adaptation of part of the south wing for the Stamp Department in May 1857, the building was finally finished ([42]).

Pennethorne's extension to Somerset House was one of his most successful designs. His cosmopolitan architectural philosophy was similar to that of Chambers, and he found no difficulty in adapting his own style and method of composition to that of the older master. He

later disclaimed any great artistic originality: "... [My] own share in the work consisted chiefly in endeavouring to follow out as nearly as possible the feeling of the original designer ... and I was not aware of any particular merit in the second part" ([43]). In fact the similarity of style masks great skill in adding a new range to an 80-year-old building with a very pronounced character of its own ([44]). The new building reminds us that architectural skill lies in "propriety" - the appropriateness of a building to its purposes and surroundings - as well as in originality or in adherence to a spurious Zeitgeist. It is a lesson that is only now being painfully relearnt by today's architects after decades of neglect.

THE DUCHY OF CORNWALL OFFICE

The Duchy of Cornwall has formed an important part of the revenues of the Princes of Wales ever since the 14th century. In the mid 1800s the Duchy estates were administered from offices next to the Tax Office in the east wing of Somerset House ([45]). The expansion of the Inland Revenue and its concentration at Somerset House after 1849 caused the tax officers to cast jealous eyes on the Duchy's premises, and early in 1853 the Treasury insisted that either the Duchy or the Admiralty, which occupied the south range, would have to move out ([46]). The Admiralty refused to move, and Sir William Molesworth failed to find a suitable existing building to

house the Duchy offices. He therefore recommended the construction of a new office elsewhere, and in August 1853 the Prince Consort, as trustee of his son's hereditary revenue, agreed, subject only to the proviso that the new building should be fireproof and that the design should be approved by the Duchy's council([47]).

The site chosen was on the Crown's Pimlico estate, an area about to be redeveloped by Pennethorne to improve the approaches to Buckingham Palace. Pennethorne had already been brought into close consultation with Prince Albert over the design of the new south wing at Buckingham Palace, and was an obvious choice as architect ([48]). He chose a prominent site opposite the Palace on a right angle formed by James Street and the new street which he had designed to run along the south-eastern side of the Palace grounds (Plate 50b). The new building was intended to set a standard for the buildings which were to face the Palace grounds, but it was not intended at first to be large or lavish, and its cost was estimated at no more than £9,475. A revised design incorporating suggestions made by Prince Albert and the Duchy council was submitted in November and later approved ([49]). Pennethorne submitted a new estimate in July 1854, and, after lengthy wrangling, it was finally agreed that the cost would be shared between the Duchy and the Government ([50]). Work began in the late summer of 1854, and the interior was ready for plastering by the end of May 1855 ([51]). Pennethorne sent in proposals for the fittings in

June 1855, and the building was occupied early in 1857 ([52]).

Even in its present altered state, the Duchy office is an accomplished exercise in the Italian High Renaissance manner (Plate 98a). By the mid 1850s palazzi had sprung up all over the West End of London, and in many provincial towns too. Some of these buildings are very ornate, and Pennethorne's headquarters for the Duchy of Cornwall is also less austere than his earlier Italianate buildings like the Ordnance Office extension. It stands out from the common run of buildings of its type because of its successful exploitation of the corner site, and the characteristic refinement of the decoration, which, in the words of one commentator, avoided "that heavy excess of details which detracts from the effect of some of our modern examples of Anglo-Italian houses" ([53]).

The Italian Renaissance offered few precedents for building on corner sites, but with the proliferation of buildings in 19th-century towns, architects often found themselves faced with the need to turn corners in an aesthetically pleasing manner. Sometimes, as in Bunning's Coal Exchange, or, more successfully at Labrouste's Bibliothèque Nationale in Paris, a domed tempietto-like structure emphasised the dominance of the corner. Like Cockerell in the Sun Assurance office in the City, however, Pennethorne chose to slice through the corner section, thus giving the building three flat

surfaces with an entrance at the centre.

The office was built of brick and faced with stucco - an echo of the Nash era. It was originally three stories high, with a rusticated ground floor over a basement, a piano nobile and a second floor surmounted by a highly enriched frieze and cornice. The main parts of the building are emphasised by carefully chosen ornament. The entrance is flanked by Roman Doric columns supporting a balcony, and a Doric entablature is carried around the whole building at first floor level. As in many High Renaissance palazzi, the first floor windows were set within pedimented aedicules, but the three windows over the main entrance lighting the Prince's room were treated as a single unit, with a pediment over the central portion - a common motif found in the Italian Baroque as well as in many Victorian buildings. Subsequent remodelling has repeated this treatment on the other two facades, so destroying something of the subtlety of Pennethorne's design ([54]). The second floor windows have enriched architraves and rest on a string course which is carried across the whole building. Above them there is an elaborate frieze made up of acanthus ornament interspersed with roundels containing the Prince of Wales's feathers, surmounted by a cornice with a plain parapet hiding the roof. This effect was ruined when an extra storey was added to the building after the Second World War.

The interior is ingeniously arranged on a

butterfly-shaped plan (Plate 98b) with a central spine stretching from the doorway through a hallway to the rounded staircase at the back of the building ([55]). Offices and muniment rooms were placed on either side of this axis on the ground floor, with the council room and library above and bedrooms for Duchy officials on the top floor. This arrangement gave Pennethorne the opportunity, rare in his buildings, to arrange some attractive spatial effects. The hall, flanked by garlanded Ionic columns, leads to a curved staircase, from which access is gained to an oval vestibule on the first floor with entrances to the council room, library and Prince's room. As in many of Pennethorne's buildings, structural iron work was used extensively. The windows at the back of the building are of iron construction, and the ground floor rests on fireproof brick arches ([56]). The Prince's room and the council chamber were intended to have elaborate plaster ceilings but subsequent changes in taste, together with wartime bombing, have removed most of the original decoration except for that of the hall, and some of the doorcases and chimneypieces ([57]).

THE FOREIGN OFFICE AND THE REBUILDING OF WHITEHALL

No story in the annals of Victorian architecture in England has been more often told than that of the building of the Foreign Office. A mismanaged

competition, changes in government, and a controversy over style ensured that the choice of design took place against a background of publicity and fierce partisanship. In this drama, Pennethorne is usually made to play Rosencrantz or Guildenstern to Gilbert Scott's Hamlet. In fact, his role is much more crucial than most writers have realised.

The building of the Foreign Office can only be understood against the background of plans for concentrating the offices of central government in Whitehall and the surrounding streets. With the growth of government in the 19th century, it became possible to envisage a complex of government buildings in Whitehall which would revive Inigo Jones's vision of a Palace of Whitehall, and act as a counterpart to Barry's new Palace of Westminster. Easier contact between government departments would reduce waste, save time and increase efficiency. Unfortunately any grand scheme of building in Whitehall was bound to be very expensive. Quite apart from the cost of the buildings themselves, much of the land on the western side was still in private ownership, while that on the east was held on Crown leases which still had some time to run. As so often in government architecture in Britain, a succession of magnificent plans languished for want of the magnificent means.

It was the Foreign Office's misfortune that its own relatively modest plans for rebuilding its dilapidated 18th-century buildings were tangled up at a

very early stage with the grandiose ideas of the administrative reformers. In the early 19th century the office occupied four former private houses at the western end of Downing Street (nos. 15-18), and another two behind them in the now long-demolished Fludyer Street to the south ([58]). The Colonial Office, whose importance naturally increased as the Empire expanded, occupied two adjoining houses (nos. 13-14) in Downing Street. It was always assumed that any new premises would go on or near the site of the existing buildings, situated as they were only a short walk from the Houses of Parliament.

Sir John Soane produced a plan for building new government offices on both sides of Downing Street in 1822, but only the northern part was carried out, in a modified form. This block of buildings, fronting Whitehall, housed the Home Office, the Privy Council and the Board of Trade. It was rebuilt in 1844-5 by Charles Barry, who subsequently went on to prepare elaborate - and abortive - plans for extending the building northwards and for rebuilding the Horse Guards as part of a "Place d'Armes... second to none in Europe" ([59]). The area south of Downing Street, to the east of the Foreign Office, was cleared of buildings in the 1830s, and between 1836 and 1839 Decimus Burton produced several designs for building new offices on the site. A Commons Select Committee found in 1839 that the existing Foreign Office was too dilapidated to warrant repairing, and recommended a plan which involved the building of a new

Foreign and Colonial Office on the site of the existing buildings. Together with other offices on the south side of Downing Street, a new "Downing Square" would thus be created ([60]). Burton's plans were shelved because of the Melbourne government's lack of money. Later governments found his designs too cramped, and objected to his proposed Foreign and Colonial Offices encroaching on St. James's Park. His scheme was therefore abandoned ([61]).

Overcrowding and structural problems in the Foreign Office soon led to renewed demands for rebuilding. The eastern wall began to give way, and had to be shored up in 1845 ([62]). By 1848 the documents of the Office had had to be moved a floor lower "because the weight of them would hazard the stability of the building" while in 1852 the Foreign Secretary was "... nearly overwhelmed ... by the whole ceiling of the room coming down just after he had left the table at which he had been sitting" ([63]). Reforms in office administration made the buildings seem all the more unsuitable ([64]). Pennethorne told a Commons Select Committee in 1855 that all the buildings around Downing Street were in a bad state of repair; their foundations rested on peat, and they had settled considerably. Some could be expected to stand for 20 or 30 years, but none was worth repairing: "The Foreign Office is now propped or tied up in various parts ... It is now quite impossible for anybody to go into the lower rooms... which are now occupied by bookbinders and printers, without seeing at once that

they are improper places for workmen to be in; they are close and dark, badly ventilated, and improper in every respect" ([65]).

The decision to include a new Foreign Office in a comprehensive plan of the Downing Street area was taken by the Aberdeen administration soon after it was formed in December 1853 ([66]). Administrative reform was in the air. The Northcote-Trevelyan committee had completed its investigations, and was to publish its report in January 1854. The economy was reasonably buoyant, and a large-scale scheme for building government offices could be contemplated without excessive qualms about the cost. Pennethorne, with his long experience as architectural adviser at the Office of Works, must have seemed an obvious person to draw up a general plan, and to design the buildings cheaply and efficiently. At Molesworth's request, he sent in a plan intended only to "enunciate general principles" in April 1854, a month after the outbreak of the Crimean War ([67]). In the following month Molesworth asked him to send in plans "on a more expanded scale" showing buildings on each side of Downing Street, which was to be continued west into St. James's Park ([68]). Molesworth now told a Committee of Supply that he was prepared to order the redevelopment of Downing Street as soon as the Chancellor of the Exchequer sanctioned the expenditure ([69]).

The money was not granted, probably because official minds were beginning to be attracted by yet more

grandiose designs. Pennethorne was asked in June to prepare plans for offices which would spread south from Downing Street across Fludyer Street to Crown Street, including some vacant land belonging to the Crown near Soane's State Paper Office on the edge of St. James's Park. Accommodation would now be provided not only for the Foreign Office, but also for the Colonial Office, the War Office, and the Board of Trade. There would also be official houses for the Prime Minister and Chancellor of the Exchequer - replacing nos. 10-11 Downing Street - and ministerial reception rooms. The offices would be built gradually as funds became available. The estimated cost, including that of purchasing the land, was £502,000, subsequently revised upwards to £580,000. In September Molesworth asked Pennethorne to produce elevations of the Foreign Office buildings on the south side of Downing Street, and plans of each floor ([70]). Plainness was the order of the day. The buildings were to be of brick, with stone dressings, but those to the north of Downing Street, for which Pennethorne had not yet prepared elevations, might be "richer and more architectural" ([71]). This scheme was quashed when the Cabinet decided that Downing Street should not be continued into St. James's Park because of the traffic noise and lack of privacy which would result ([72]).

Pennethorne's next scheme, preserving the seclusion of Downing Street, was approved by the Treasury in November 1854 ([73]). As a first step towards gaining

Parliamentary approval, he prepared a detailed plan of the ground, and in January 1855 he submitted yet another set of plans and drawings, including two coloured perspective sketches ([74]). The new design differed substantially from the one which the Cabinet had rejected. The buildings were now to be laid out in an altogether more ambitious and architecturally satisfying manner around a quadrangle, 25 ft. by 155 ft. (Plate 99a), bounded by Horse Guards Parade, Whitehall, Crown Street, and St. James's Park, an idea for which Molesworth himself took the credit ([75]). A possible southern extension to take in the ground between Crown Street and Charles Street was also indicated, but was not included in the initial Bill for the compulsory purchase of the ground ([76]). Pennethorne later claimed that his design was framed with reference to Soane's original views on the development of Whitehall ([77]); it was certainly intended to introduce an element of grandeur and coherence to the layout of an area in which these qualities had never been allowed to develop. The idea of the quadrangle may well have been influenced by Chambers's Somerset House, where he had just designed his new western extension. It introduces a theme which was eventually taken up by Gilbert Scott and Matthew Digby Wyatt when they were finally commissioned to build the present Foreign Office/India Office complex.

An undated perspective drawing (Plate 99b) shows the main front to St. James's Park as Pennethorne

envisaged it early in 1855 ([78]). The main element is a massive four-storey block of offices with a raised central section and corner pavilions. The wall-surfaces are more richly decorated than Pennethorne's earlier government buildings, but the overall effect is still one of classical poise. The Foreign Office was to occupy the south-western corner of the proposed square, and spill over into a plain three-storied building placed at right angles to the huge main office block on the vacant ground next to Soane's State Paper Office. Both the elevation and floor levels of the lower building were obviously designed to blend in with the earlier building. This sensitive treatment of the work of one of England's greatest classical architects contrasts markedly with the attitude of Scott and Wyatt, who were later to demolish it to make way for their own much more assertive Foreign Office. But Pennethorne had less respect for the ordinary domestic architecture of the 18th century, as exemplified in nos. 10 and 11 Downing Street; they were to be demolished to make way for the north range. On the Whitehall front he proposed to build a replica of Barry's remodelled Board of Trade office, and to demolish the houses at the southern end of the street which blocked the view of Westminster Abbey.

Lord Aberdeen resigned in January 1855, in the wake of criticism of his government's handling of the Crimean War. Pennethorne nevertheless continued to work on his designs under Molesworth, who stayed on as Chief

Commissioner of Works under Palmerston. Molesworth wanted the undertaking to be carried out "with the greatest possible expedition", starting with the Foreign Office, and in February Pennethorne reported that work could be begun in the spring. The Colonial Office, on the south side of the proposed quadrangle, could follow in 1856, and both buildings would be ready by 1858. Work could then begin on the north range, containing new official houses for the Prime Minister and Chancellor of the Exchequor, and the much larger west range, which was intended for the War Office and a suite of reception rooms, with the new block fronting Whitehall following at some unspecified later date ([79]).

Pennethorne's designs were modified in April 1855 to provide more space in the Foreign Office. The building adjoining the State Paper Office was now to be raised one storey higher, and topped by a low-pitched hipped roof of Italianate character like those of the Ordnance Office and the Pall Mall clubs; at the same time the central part of the proposed large office block was given a low pediment (Plate 100) ([80]). The day after Pennethorne submitted this revised design, the Downing Street Public Offices Bill was introduced into Parliament. The prime object, said Molesworth, was to replace the Foreign and Colonial Offices, which were "perfect nuisances", with new buildings which would be financed out of general taxation, starting with an expenditure of £90,000 ([81]).

For the next two months Pennethorne was involved in working out detailed internal plans in conjunction with Edmund Hammond, a former diplomat who had become permanent under-secretary at the Foreign Office ([82]). The main entrance was to face east into the new quadrangle and to lead into a spacious hall and staircase leading up to the first floor apartments for the Foreign Secretary, a feature later incorporated in Gilbert Scott's building. Most of the staff accommodation was to go in a block next to the State Paper Office ([83]). The plans were approved by the Foreign Secretary and, on the reasonable assumption that work was about to begin, Pennethorne sent in detailed elevations and some working drawings in August ([84]).

The first check to Pennethorne's scheme came from Parliament. The Public Offices Bill passed its third reading in the Commons unopposed, but in a Committee of Supply on 31 July 1855, Sir Francis Baring, M.P. for Portsmouth, expressed a fear that if work were to start on the Foreign Office, the Government would be committed to carry out Pennethorne's scheme in full, at a far greater cost than the architect had anticipated. Molesworth now explained that a Select Committee which had recently discussed the Bill had only recommended acquiring the land, and had not specifically advocated the adoption of Pennethorne's scheme at all. Palmerston, fearing a backbench revolt at a time when the Crimean War was still raging, and party discipline slight, therefore

proposed a vote of £10,000 for temporarily patching up the existing Foreign Office, and another of £30,000 for acquiring the land between Fludyer Street and Crown Street, to the south of the existing building (Plate 101); another committee would be appointed in the next session to consider the plans for the new building in more detail ([85]). This proposal won general assent.

The issue was further complicated when the Bill was read for the second time in the Lords. Lord Redesdale, the Chairman of Committees, urged the acquisition of the whole area between Downing Street and Great George Street (now Parliament Square), which was "covered with as poor buildings as any part of the metropolis". The present Bill, he said, did not go far enough, and would only have the effect of forcing up the price of the ground to the south, which would have to be bought sooner or later ([86]). Molesworth's Bill, in its amended form, gained the royal assent, but the idea of building on a larger scale had now been implanted in official minds, notably that of Sir Benjamin Hall, who had just become Chief Commissioner. Hall shared Molesworth's belief in administrative reform, even if it involved going against the other Radical shibboleth of cutting government spending. Within a month of taking office he wrote that "... if there was to be any plan for alterations of Buildings, it should be a great plan for all the offices - part to be executed annually" ([87]). The Builder added its voice to the debate by lamenting

that £25,000 a year was being spent on renting government offices, and calling on Hall to "give the profession a fair chance" by holding a competition for the development of the site ([88]).

Hall's first move was to ask Pennethorne to prepare sketches for building on the expanded site of 10 acres stretching from Downing Street to Great George Street. The architect produced four separate schemes at the end of August, 1855, which he estimated would cost between £1,750,000 and £2,450,000. Three weeks later Hall asked him to produce more detailed schemes based on "Design no. 4", whose estimated cost was £2m ([89]). Pennethorne later claimed that the final scheme was approved in October, whereupon he began work on more detailed drawings which were delivered to Hall after some revision in February 1856 ([90]). Only two of these drawings now survive, both of them undated. One shows a revised version of the building originally planned for the Downing Street site ([91]), and the other the southern complex of buildings as seen from the present Parliament Street ([92]). They allow us to judge what London lost when Pennethorne was passed over as architect.

The Downing Street building in its revised form would have been lower and much more monumental than originally intended (Plate 102). The design owes more to Schinkel and the French classical tradition than to the Italian Renaissance, and it marks an important turning point in the evolution of Pennethorne's style. The

turrets in the earlier schemes are left out, and the massive structure is now enclosed within a giant Corinthian order supporting an enriched frieze surmounted by statuary. A severe Grecian attic - influenced surely by the Berlin Schauspielhaus (1818-21) - crowns the centre. A lower block links this very impressive building to a more elborately detailed tower in place of the Foreign Office building next to the State Paper Office. From here a four-storied block stretches south towards Parliament Square. Pennethorne obviously hoped to treat the southern part of the expanded site as a single unit, with offices arranged around courtyards, but he breaks up the very long facades with towers placed at regular intervals. A note of the Sublime is introduced by pairs of taller towers which crown the facades to Parliament Street and St. James's Park, but unity is imposed by the discipline of the orders and the long continuous cornices (Plate 103a). Against the leafy background of St. James's Park, with the Houses of Parliament and Westminster Abbey to the south, the effect would have been superb, if a little overpowering.

In the end nothing came of any of Pennethorne's schemes. "Benjamin the Magnificent" had already crossed swords with Pennethorne, and, with the reformed War Office asking for new premises, he decided in April 1856 to appoint a Select Committee to discuss plans for concentrating all the major public departments in Whitehall, but with the designs chosen through

competition rather than patronage, "... in order that we might at last have some public building worthy of the metropolis" ([93]). He also took steps to place the negotiations for purchasing the property on the Downing Street site in the hands of Henry Arthur Hunt, the new Surveyor in the Office of Works. Pennethorne protested, but Hall told him that he could not "... accede to your request that you should be absolutely selected as the Architect of this great work merely because you are the Official Architect of the Department" ([94]). Incensed, Pennethorne submitted a "Memorial" to the Treasury in which he claimed that the abandonment of his designs for the Whitehall site was a breach of faith. In reply, Hall maintained that he had never wanted elaborate designs, and was "much surprised" when presented with detailed drawings, which in any case he found objectionable ([95]).

After more than a century it is impossible to determine the precise rights and wrongs of the case. Clearly it was impossible to reconcile Hall's strongly-held belief in the competitive principle with Pennethorne's equally strongly-held wish to be granted a commission which would finally enable him to be placed with Barry and Cockerell as one of the leading classical architects of his age. Unfortunately Pennethorne's position in the Office of Works was not strong enough to prevent Hall from holding the competition on which he had set his heart. The official response to Pennethorne's complaint was that, while he deserved payment for the

designs, he had "misunderstood" his instructions in August 1855 ([96]).

The subsequent story is well known. In July 1856 a Select Committee endorsed Hall's plans for competitions for the Foreign Office, the War Office on a much enlarged site, and a block plan for the development of the whole Whitehall area ([97]). The competitions, announced in September, were doomed from the beginning because Hall failed to persuade Palmerston's government to pledge itself to abide by the results, or even to build the buildings for which designs were invited. Income tax had doubled in the Crimean War, and a large budget deficit incurred; despite the healthy state of the economy, the Treasury was less willing than ever to embark on what might turn out to be open-ended committments to large public expenditure. Palmerston's own main concern was to rehouse the Foreign Office, where he had spent so many years himself, and in October, just after the competitions had been publicly advertised, he told Hall that the Cabinet had decided to abandon the plan to move the War Office to Whitehall. Instead, a new Foreign and Colonial Office would be built on the ground between Downing Street and Fludyer Street for which Pennethorne had prepared designs. The Prime Minister wondered, understandably, "... whether the Artists of Europe will not think that they have been trifled with in being asked to send in Plans for an undertaking which the Govt. had on consideration determined not to attempt"

([98]). Palmerston has often been blamed for his role in the ensuing debacle, but at this stage at least it seems that his main fault was in failing to restrain Hall from holding the competition at all.

The competition entries were exhibited in Westminster Hall in May 1857, and the prizes were awarded in the following month ([99]). The winning designs attracted little praise at Westminster, and the government soon made it clear that it would not commit itself to carry any of them out. M.P.s agreed in August to the government's request for a grant of £80,000 to complete the purchase of the site earmarked for the Foreign Office under the 1855 Act, and two days after Parliament rose, Edmund Hammond was told that the Foreign Office would be built to Pennethorne's original design ([100]).

The attempt to reinstate Pennethorne emanated from the Treasury, but it must presumably have been endorsed by Palmerston himself ([101]). In October the economist James Wilson, Financial Secretary to the Treasury, asked Hall to re-examine Pennethorne's plans of 1855 and report on whether they would furnish the extra accommodation needed in view of a recent increase in the establishment. Decimus Burton had just been paid for his schemes of 1839, and the Treasury officials did not want to have to compensate Pennethorne too, as well as embarking on the uncertain expense of carrying out the designs of one of the winning competitors. The decision

not to go ahead with the purchase of the extra land intended by Hall had, in Wilson's opinion, invalidated the competition, and restored matters to the status quo. This point of view was vociferously attacked by Hall, who claimed that "... the monopoly of erecting Government buildings by an officer of the Board, paid by the same amount of percentage on the outlay as other architects would claim, is by no means advisable, and is a source of discouragement to other architects" ([102]).

The Foreign Office might nevertheless have been built to Pennethorne's designs had not William Tite, the only architect in the House of Commons, asked Hall to publish his recent correspondence with the Treasury ([103]). When the letters were printed, Gilbert Scott, whose Gothic design in the Foreign Office competition had won him the third prize, felt, in his own much-quoted words, "at liberty to stir" on behalf of the competitors. He enlisted the support of the R.I.B.A., and in March 1858 sent a "Memorial" to Lord John Manners, Chief Commissioner in the new Conservative administration which had recently replaced Palmerston's ([104]). On the following day Beresford Hope, the owner of the Saturday Review, which had challenged Pennethorne's competence all along, moved for a copy of this document to be placed before the House of Commons. He also claimed that "... all the promises which had been made to the [competing] architects had been thrown to the winds, and an attempt had been made by the Treasury to force on the Department

of Works an old worn-out plan designed years ago by a gentleman who was very respectable in his private character, but who was atrociously unfit to execute any great national work" ([105]).

Now that the question had been thrown open to public opinion - at least that of the increasingly well-organised architectural profession - Lord Derby's minority government could hardly fail to pay attention. A new Select Committee was therefore appointed, which came under Hope's chairmanship. The report, published after some internal disagreement in July 1858, virtually destroyed Pennethorne's revived hopes of designing the Foreign Office, and set the scene for the famous "Battle of the Styles" in which Scott won his pyrrhic victory ([106]). While recognising that the competiton did not bind the government to employ any of the competitors, a majority of the Committee succeeded in inserting a clause to the effect that it would be "contrary to the public interest" not to do so.

One of the factors held against Pennethorne was that his designs of 1855 did not provide enough space for the enlarged requirements of the Foreign Office, although Edmund Hammond thought that if it could be expanded to the east and south it would still be more convenient than any of the prizewinning designs ([107]). More important, the practical advantages and aesthetic qualities of his design were submerged in a debate about style and about the rights and wrongs of architectural competitions.

According to the writer of a series of articles in the Building News, the Committee's evidence showed that Pennethorne had been "... the victim of a most detestable system - a sufferer from routine and red-tape". His scheme had never been properly considered by the public, and on practical grounds it was better than those of the prizewinners. If he did not receive the commission, it would probably go not to the first prizewinner, but to the second, Banks and Barry, or the third, Scott, all of whom had more powerful friends on the Committee ([108]) - a prediction which was soon to be proved true.

Scott was now given the opportunity he craved. Hope's Saturday Review, faithful to its owner's advocacy of secular Gothic, published a series of articles favouring his claims. Pennethorne, it was said, had designed "the very worst buildings, and in every variety of style, in London", and was "incapable of a great or even a decent architectural work" ([109]). Manners had once been a leading member of the "Young England" group and was probably predisposed to look on the Gothic Revival with more sympathy than other Victorian First Commissioners. He certainly claimed on a later occasion that a Gothic building would suit the genius loci of Westminster, with its mediaeval associations, better than a classical one ([110]). This questionable belief must have helped shape his decision to choose Scott, instead of Coe and Hofland, or Banks and Barry, the first and second prizewinners; his biographer even went so far as

to say that his choice of Scott was "... the last occasion in which Young England found a practical expression in the House of Commons" ([111]).

Scott was finally confirmed as architect in November 1858 ([112]). When the decision was discussed in the Commons early in the following year, the choice of a Gothic design brought the "Battle of the Styles" into the heart of the Palace of Westminster. The fall of Derby's government in May brought Palmerston back to power, but despite his earlier advocacy of Pennethorne, he reluctantly conceded that Scott could not be abandoned ([113]). Instead, he persuaded Scott to renounce Gothic and to build the Foreign Office in its present form (Plate 103b). Pennethorne was finally paid for his own designs in August 1864, after William Cowper, Manners's replacement as Chief Commissioner, had persuaded a sceptical House of Commons that ".... it would not be honest of Parliament not to compensate an architect for work fairly done, and which had been of great use in forming a decision on the subject" ([114]).

Discussion of the Foreign Office controversy has always suffered from the failure properly to assess Pennethorne's plans. It has been assumed, even in the most recent accounts, that these designs were mediocre and unimaginative, and that Hall's decision to call a competition opened the way to the selection of a better design. In fact, Pennethorne's designs were not only preferred by the people who were going to use the

building, the Foreign Office officials; they were also, aesthetically, more pleasing than the building eventually constructed to the designs of Scott and Digby Wyatt.

Aesthetic judgement is of course to a large extent a matter of individual taste. But Pennethorne's designs, especially the final ones, have a calm and rational assurance that the present building lacks, whatever the undoubted scenic qualities of the Gothic design Scott had hoped to build. One of the greatest difficulties faced by a classical architect is that of giving his building an individual character which in some way expresses its purpose and function, while at the same time deferring to the classical proprieties and to the qualities of the surroundings. In his designs for the government offices in Whitehall Pennethorne showed that he was capable of conceiving such a building. The fact that it was never built is a sad comment on the shortcomings of official patronage of architecture in the mid 19th century.

THE WAR OFFICE

Pennethorne's successful completion of the Ordnance Office extension in Pall Mall made him a natural choice as architect for a new headquarters for army administration after the merger of the offices of Secretary of State for War and Secretary at War in 1854. The new combined War Office was housed in Pembroke House,

Whitehall, but the division between it and the Ordnance buildings remained a drawback to efficiency ([115]). Sir William Molesworth therefore ordered Pennethorne to include premises for the reconstituted War Office in his scheme for concentrating Government offices in the Downing Street area in the summer of 1854, and a block plan showing the War Office occupying a site in his massive block overlooking Horse Guards Parade was eventually published in July 1855 ([116]).

When the Ordnance department was merged with that of the Secretary of State for War in 1855, the pressure for combining the two departments on a single site increased. The Crimean War led to widespread criticisms of military administration, and its end did not lead, as some people had expected, to a significant reduction in staff. Pressure for space became even more acute after the Indian army was brought under the aegis of the Secretary of State for War after the Indian Mutiny in 1857. By 1858 there was a staff of 500, and between £5000 and £6000 a year was being spent on renting offices ([117]).

Given the difficulty of getting agreement to any plan for concentrating Government offices in Whitehall, the simplest and cheapest course of action was to extend the recently enlarged Ordnance Office in Pall Mall for the civil officers, leaving the military officers in the Horse Guards. The Pall Mall premises could be extended by acquiring the Crown leases of the

adjoining houses, the late-17th-century Schomberg House (nos. 80-82) to the west, then a fashionable textile retailing establishment, and the larger Buckingham House (no.91) to the east. Pennethorne surveyed both properties in 1855, but the government decided to acquire only Buckingham House, an 18th-century building remodelled by Soane in the 1790s ([118]).

The Crimean War ended in the autumn of 1855. Soon afterwards, at the request of Lord Panmure, Palmerston's Secretary for War, an energetic reformer who had already made a study of the much-admired military administration of Britain's French ally, Pennethorne was asked to investigate the relative costs of repairing Buckingham House, adding to it, or building a new office on the site ([119]). It soon became evident that Panmure entertained ambitious ideas about building a new War Office to Pennethorne's designs on the site of Buckingham House and the adjoining nos. 88-90 Pall Mall, which had yet to be acquired ([120]). Assuming that the backing of the War Office would secure him the commission, Pennethorne went ahead and produced detailed elevations and a plan early in 1856 ([121])

Pennethorne's rather overpowering design (Plate 104) reflects the confidence of a nation which had just won a major war - however little the military administrators might have contributed to the victory. The new building was to consist of three ranges around an open courtyard, with the recently remodelled east wing of

the old Ordnance building on the fourth side. The main frontage faced north onto Pall Mall. Here Pennethorne proposed to build a massive four-storied block, with three-bay turrets at each end like those he had included in his first Downing Street design. The facade was to be "as enriched and as architectural as the other large buildings with which it must compare" ([122]), notably Sydney Smirke's recently built Carlton Club to the east, whose elaborate Renaissance elevations had brought a new note of extrovert Venetian splendour into the street (Plate 42a). In its profuse surface decoration Pennethorne's War Office would have out-Carltoned the Carlton and overwhelmed the old Ordnance buildings to the west.

Pennethorne was as cosmopolitan in his interests as any of his English contemporaries, and his design is an attempt to amalgamate features taken from French and Italian Renaissance architecture, as well as from the works of his German contemporaries. Its eclecticism is highly characteristic of the era, but there is an underlying discipline to the design which prevents it from collapsing into a meaningless conglomeration of ill-digested detail. The openings are fitted into a grid formed by the heavily rusticated piers and string courses, and the facade is given unity by the massive cornice. Pennethorne proposed to introduce a good deal of decorative carving, especially around the two doorways and in the spandrels of the first- and

second-floor windows, which anticipate those in Knowles's later Grosvenor Hotel, and other buildings of the French Renaissance revival. This profusion of sculpture looks forward to his last building, the London University senate house.

Pennethorne's designs for the War Office, like that for the Foreign Office, represents an important development in English official architecture. Both designs fell foul of Sir Benjamin Hall, who told the architect in February 1856 that he had decided to hold a limited competition to which he was later invited to enter. By this time, however, Pennethorne had already produced detailed plans which met with Lord Panmure's approval ([123]). But Hall was determined to hold his competition and, as in the case of the Foreign Office, the views of the people who would have to use the building did not deflect him. He believed that Pennethorne's plans had "... been drawn without any regard to two material requisites for a Public or other Building, viz. - light and air; and in the next place they have been drawn without reference to the Site which will actually be covered with Buildings. This fact, independently of the former consideration, renders new Plans necessary". Without holding a competition it would be impossible to secure "the very best talent of the Profession" and make the new building "an ornament to the Metropolis" ([124]).

Hall's conduct in calling for a competition for

a War Office in Pall Mall was somewhat disingenuous, since on 20 March he had already told Palmerston that he thought it very doubtful that the building would be built at all ([125]). Hunt, the Office of Works surveyor, had come to the conclusion that the site was too cramped and that it would be better to sell the leases of all the houses and move the whole establishment to Whitehall ([126]). The result was the abandonment of the original limited competition and its replacement by the widely publicised open competition for a new Foreign Office and War Office in Whitehall. Lord Palmerston was not party to this decision, and on 13 October, just after the competition was announced, he told Hall that the Cabinet wanted the War Office to be housed in "an unpretending but suitable manner in Pall Mall", a project which could proceed at the same time as the proposed Foreign Office between Downing and Fludyer Streets ([127]). Despite this rebuff, the competition was still allowed to proceed, and in May 1857 the designs were exhibited in Westminster Hall, together with those for the Foreign Office and the layout of the whole area.

Despite the failure of Hall's competition, an attempt by the War Office officials to revive Pennethorne's original scheme came to nothing, and in September 1857 the Cabinet decided to acquire Schomberg House, on the other side of the old Ordnance Office ([128]). Here Pennethorne proposed to construct a more modest building, housing over 200 people at a cost of

£26,000, which was approved by the War Office officials ([129]). This building, like its predessor, did not get off the drawing board, and the War Office bureaucrats continued to occupy their former noblemens' town houses (Plate 92b) until 1908-12 when they finally moved into splendid Baroque premises designed by Sir William Young on the eastern side of Whitehall. In this way Hall's aims of moving the office to Whitehall were posthumously achieved.

THE ADMIRALTY

The mid-19th-century Admiralty was divided between two London buildings, the riverside range of Somerset House, and a block of offices and official residences on the west side of Whitehall built to the designs of Thomas Ripley in 1723-6, and subsequently screened from public gaze by Robert Adam in 1759-61. From these two premises, the one an undistinguished essay in the neo-Palladian manner, the other the masterpiece of the leading native academic architect of the 18th century, Britain exerted her naval supremacy over the whole surface of the globe.

With proposals in the air for centralising Government offices for the sake of economy and efficiency, the Treasury authorised the Office of Works to prepare plans for an extension to the Whitehall

building early in 1853, and later in the year Pennethorne was asked to investigate signs of structural settlement there ([130]). Nothing was done, and in the next few years controversies over rebuilding the Foreign Office and War Office made the Admiralty's accommodation problems seem relatively insignificant. It was only after these questions were at least temporarily settled that the idea of bringing together the Admiralty's departments in one place was once again aired.

Pennethorne was asked in the autumn of 1861 to report on how the Whitehall building could be enlarged to include the branches at Somerset House ([131]). He suggested that any new building should go on Crown property behind the existing office, and extend as far as New Street, a now vanished thoroughfare which ran from Spring Gardens to St. James's Park. A month later he sent in a survey of the site, with estimates of £145,000 for constructing a plain, fireproof brick building, and £30,000 for purchasing the leases ([132]). The Admiralty officials favoured a free-standing building with facades to New Street and St. James's Park, but the scheme was vetoed by the Treasury which decided in March 1862 to enquire whether a less expensive solution could be adopted, possibly by building a southward extension of the existing building over the Admiralty Pay Office in Whitehall ([133]).

The Treasury's committee on Admiralty accommodation recommended that Pennethorne should

estimate the cost of moving the Somerset House departments into the existing Whitehall building by taking over the official residences there, and rehousing the First Lord of the Admiralty in the new Inland Revenue wing at Somerset House ([134]). In order to accommodate the displaced tax officers, he was asked to prepare plans for acquiring the site at the corner of the Strand and Wellington Street for a northward extension of the new Somerset House wing, and in November 1862 he reported that a new Stamping Department could be built on this site for £78,000 ([135]). Nothing came of these plans either, and with other costly projects looming, all the schemes for new Admiralty accommodation were dropped ([136]).

The leases of the Spring Gardens houses were nevertheless finally acquired, and the remaining Admiralty departments moved there from Somerset House in 1873 ([137]). Several schemes for building an extension over the newly-acquired ground were made throughout the 1860s and 70s, but after a succession of changes of mind unusual even by Office of Works standards, and a widely publicised competition, nothing was actually built until 1890, when the present depressingly mediocre building by Messrs. Leeming and Leeming of Halifax was begun.

1. S. Checkland, British Public Policy, (Cambridge

1983), pp. 110-1.

2. Kings Works, vi, p.216.

3. Parris, Constitutional Bureaucracy, pp.50-4.

4. BN 17 Sept. 1858, p.928.

5. J. Craig, A History of Red Tape (1955), pp.123-7.

6. M. B. Wheatley, Round about Piccadilly and Pall Mall (1870), p.336.

7. Survey of London xxix, pp.364-5, 369; MPD 134/1-3; T1/5193/10425.

8. T1/5193/20425; T25/19, p.390. An elevation of the alternative scheme survives in T1/5193/20425.

9. 2nd Rep. Sel. Cttee. on Army and Ordnance Expenditure, PP 1849 ix [499], p.xxiii.

10. T.25/20, p.61; Works 1/35, p.5; Works 2/8, pp.12-13, 52-5, 102-6..

11. Greater London Record Office, Met. Buildings Office, Cases of Special Supervision, lxxxvii. pp.181-9; Builder 16 Aug.1851, p.515.

12. See elevation in Builder, 16 Aug. 1851, p.515; the old buildings are illustrated in Walford, Old and New London, iv. p.126.

13. Hitchcock called the effect "almost Syrian": Early Victorian Architecture i, p.297. The building is described in detail in Survey of London xxix, p.368.

14. Works 1/38, p.196; /39, p.240.

15. Work 2/10, pp.425-8.

16. Works 1/40, pp.287, 736; MPH 99, plans dated 28 Jan. 1854.

17. For the earlier history of the building, see J. Harris, "Somerset House, London", C.L. 16 & 23 Nov. 1967, pp.1248-1252, 1340-3.

18. R. Needham & A. Webster, Somerset House, Past and Present, (1905), p.241; J. Craig, History of Red Tape, p.107.

19. Hansard cxxii, 18 Jan.1852, 936-7; T1/5706B/25092, 30 May, 1851.

20. Works 1/37, p.120; Works 12/99/6, ff 1,6.

21. Needham & Webster, pp.215, 234-5; Knight, London Pictorially Illustrated iv, pp.283-4.

22. Westminster Review, xxxvi (1841), p.411; Companion to the Almanac (1850) p.228; Hobhouse, Lost London, p.77.

23. Works 2/8, p.133; T1/5706B/25092, 30 May 1851.

24. Works 2/9, p.14. From Marlborough House they went to South Kensington.

25. T1/5706B/25092; T25/10, p.121.

26. Works 1/36, p.382.

27. Works 12/99/6, ff.5-6,11; Works 30/288.

28. Works 12/99/6, f.19; RIBA Trans 1856-7, p.10.

29. T25/20, p.198; Works 1/38, pp.109, 226; Works 30/284, /2871; Builder 6 Dec. 1851, p.763.

30. T25/20, p.214; Works 1/38, p.523.

31. Works 30/284.

32. T25/20, p.188; Works 12/99/6, ff.19, 51.

33. Works 12/99/6, ff.84, 111-3, 132-142; Works 1/46, p.329. The other competitors were Westmacott, Frederick Thrupp and John Bell: ibid. ff.132-142; Works 1/46,

p.329.

34. Needham & Webster, p.249.

35. Works 12/99/6. ff.193, 198-9.

36. Works 30/284, /2764-8, /2770, /2784-7; BN 27 May 1857, p.215.

37. Works 1/38, p.791; /39, p.102.

38. Works, 12/99/6, ff.81, 95, 98; Works 1/39, p.431.

39. Works 12/99/6, ff.161, 215, 223-4, 323,333.

40. ibid. ff.234-5, 267-8, 295-6; Works 1/82, p.46.

41. Works 12/99/6, ff.310, 327, 339-341; Works 1/52, p.399.

42. Works 12/99/6, ff.379, 404, 410. Pennethorne prepared some plans for adapting the centre of Chambers's river front as an official residence for the First Lord of the Admiralty in Nov. 1862, but they were never carried out: Works 30/2885.

43. RIBA Trans, 29 May 1865, p.2.

44. ibid. 1 July 1856, p.1.

45. P. Cunningham, Handbook to London (1850), p.164; Needham & Webster, Somerset House, pp.215, 245.

46. T26/1, p.63; The idea seems to have originated with Gladstone, Chancellor of the Exchequor in the Aberdeen government: Add MS 44381, ff. 177-9.

47. Works 12/101/2, ff.3-4.

48. Works 1/41, p.809.

49. Works 12/101/1, ff.7-9, 12,15,18,35. The working drawings, delivered on 7 Feb. 1855, are in Works 30/839-876. The builders were Messrs. Haward and Nixon.

50. Works 12/101/1, f.164; Hansard cxxxv., 31 July 1854, 1039-1043. The new estimate, for £15,300 , included compensation to the Crown Estate for the site: Rep. Commrs. of Woods, Forests etc. PP 1854-5 xxix., p.15.

51. Works 12/101/1, f.188.

52. Works 1/52, p.214; Works 12/101/1, ff.266,287.

53. BN 6 Feb. 1857, p.144.

54. The original elevations are shown in Builder, 3 Nov. 1855, p.527, and Richardson, Monumental Classic Architecture p.101.

55. Builder 3 Nov. 1855, p.525 (plan); Works 30/835-7.

56. Works 30/842, 844.

57. BN 6 Feb. 1857, p.144. I am indebted to the Librarian, Richard Haslam, for information about the recent history of the building.

58. King's Works, vi. p.562; I. L. Toplis "The Foreign Office: an Architectural History", Thames Polytechnic Ph.D.thesis (1980), pp.10-12.

59. King's Works, vi, pp.551-562; J. Soane, Designs of Public and Private Buildings (1828), pl.26; A. Barry, Life of Barry, pp.276-7.

60. Kings Works, p.563; Toplis, op.cit. pp.15-16.

61. He was reimbursed for his plan in 1856: Works 2/13, p.436. See also B.L. Add Ms 43200, f.64; Rep.Sel.Cttee. on Downing Street Public Offices Extension Bill, PP 1854-5 vii [382], pp.7-8.

62. T25/19, p.254.

63. Hansard ci, 11 Aug. 1848, 100; cxxxix, 15 June

1855, 2015.

64. Toplis, op.cit., pp.17-18.

65. PP 1854-5, vii, pp.2,4. See also Works 12/84/1, ff.9-10.

66. T1/6693A/3774; Rep.Sel.Cttee. on Foreign Office Reconstruction, PP 1857-8 xi.[417] p.23.

67. Works 12/84/1, f.1

68. ibid. f.8; T1/6693A/3774. The plans were submitted on 12 June.

69. Hansard cxxxiii, 8 June 1854, 1278.

70. T1/6693A/3774; Works 12/84/1, f.7.

71. BL, Add MS 43200, ff.66-8.

72. ibid. ff.63-5; T1/6693A/3774; Works 12/84/1, f.40.

73. T26/1, p.197; Works 2/12, p.378; Works 12/84/1, ff.11-26.

74. PP 1854-5 vii, p.1; T1/6693A/3774; Works 12/84/1, f.34

75. Works 12/84/1, f.34-6, 40, 45.

76. Works 30/975, /977.

77. PP 1854-5, vii. p.4.

78. Contemporary photograph in the collection of Mr. Peter Laing. I have not been able to trace the original.

79. Works 12/84/1, ff.38-9; PP 1854-5 vii, pp.2-3 and plan; Works 30/975.

80. T1/6693A/3774; Works 2/12, p.715; Works 12/84/1, f.40. An undated drawing of this design was sold at Christies on 14 June 1983, cat. no. 139.

81. Hansard cxxxvii, 26 April 1855, 1830-1; T26/1

p.237. The site of the Foreign Office belonged to the Crown, which was to be compensated with ground in New Oxford Street. The Colonial Office was to stand on ground belonging to Sir Samuel Fludyer and the Dean and Chapter of Westminster: PP 1854-5 vii. pp.2-3 and plans.

82. T1/6693/3774; PP 1857-8 xi, pp.3, 24-7.

83. Works 30/890-2. Pennethorne made a model of the new building (now lost) in June: T1/6693A/3774.

84. T1/6693A/3774; Works 12/84/1, f.70.

85. Hansard cxxxix, 31 July 1855, 1575-7; M.H. Port, "Pride and Parsimony: Influences affecting the development of the Whitehall quarter in the 1850s", London Journal ii (1976), p. 183.

86. Hansard cxxxix, 2 Aug. 1855, 1623.

87. Works 12/84/1, f.137, quoted in Port, loc. cit. p.189.

88. Builder 11 Aug. 1855, p.382.

89. T1/6693A/3774; Works 12/84/1, ff.136, 138v; PP 1857-8 xi, p.185.

90. T1/6693A/3774., letter of 14 Feb. 1863. The drawings were, he said, "numerous, very complete, and highly finished". Some were dated Jan.1856: Builder, 25 Aug. 1877, p.853.

91. RIBA drawings collection, X16/2.

92. Contemporary photograph in the collection of Mr. Peter Laing. I have not been able to trace the original.

93. Hansard cxli, 4 April 1856, 466-7; BN 13 Aug. 1858, p.807.

94. PP 1857-8, xi, p.182; Works 1/50, pp.195-6.

95. PP 1857-8 xi. pp.129-30, 183-7.

96. Hansard clxxv, 30 May, 1864, 849.

97. Rep.Sel.Cttee. on Public Offices, PP 1856 xiv. [368], pp.iii-iv, 18-21, etc.; Port, loc.cit., pp.193-4.

98. Broadlands MSS, GC/HA/55.

99. The most recent account of the competition is by D. Brownlee, "G. G. Scott's Design for the Government Offices", Architectural History. xxviii (1985), pp.164-6.

100. Hansard cxlvii, 24 July, 10-11 Aug. 1857, 364, 1295-1311, 1459; PP 1857-8 xi, p.37.

101. Sat.Rev. 24 July 1858, p.83; Hansard cliii, 18 Feb. 1859, 523.

102. PP 1857-8 xlviii, p.8-12, 28 Dec. 1857.

103. Hansard cxlviii, 11 Feb. 1858, 1165-7.

104. G. G. Scott, Recollections, p.180.

105. Hansard cxlix, 25 March 1858, 782.

106. PP 1857-8 xi., pp.iii-vii; Toplis, op.cit. pp.78-80.

107. PP 1857-8 xi. pp.33-42, 110-1.

108. BN 23 July 1858, p.735; 6 Aug. pp.784-5; 10 Sept. 1858, p.904.

109. Saturday Review, 24 July 1858, pp. 82-3.

110. Hansard cliii, 18 Feb. 1859, 519; Brownlee, loc.cit. p.168, et.seq.

111. C. Whibley, Lord John Manners and his Friends, pp.77-8.

112. T26/2, p.299.

113. Builder 6 Aug. 1859, pp.515-6.

114. Works 1/77, p.185; Hansard, clxxv, 30 May 1864, 849.

115. B.L. Add MS 43200, ff.49-50; PP 1856 xiv p.iii.

116. T1/6693A/3774; PP 1854-5 vii, plan 3.

117. PP 1857-8, xi, p.138; BN 17 Sept. 1858, p.927.

118. Cres 19/43, p.59; T26/1, p.259; Works 30/2501; Survey of London xxix, pp.359-361.

119. Works 2/13, pp.333-4; Hansard cxxxix. 15 June 1855, 216.

120. PP 1857-8 xi, pp.38, 115, 138. The cost was estimated at £80,000.

121. T1/5997A/10002. A coloured perspective drawing was sold at Christies on 14 June 1983, catalogue no. 137.

122. PP 1857-8, xi, p.115.

123. Works 1/48, p.365; PP 1857-8 xi, pp.117-9, 179.

124. Works 1/49, pp.116-7, 124; PP 1857-8, xi, pp.51-2, 180.

125. Broadlands MSS GC/HA/15.

126. PP 1857-8 xi, pp.123-6.

127. Broadlands MSS, GC/HA/55/1; Port, loc.cit., p.193.

128. T1/5997A/10002; T1/6094B/18482, T26/2, p.110; PP 1857-8, xlvii [369], p.1.

129. T26/2, pp.185, 253; Works 1/59, p.163, /61, p.34; Works 2/20, pp.121-3; PP 1857-8 xi., pp.140-8. I have been unable to trace these plans.

130. Works 2/10, p.574, 11 Feb. 1853; Works 1/46, p.239, 31 July 1853.

131. T1/6321B/16295; Works 2/28, p.190.

132. Works 2/25, pp.105-6; T26/3, p.174; T1/6380A/15699. Pennethorne's plans do not survive, and it is not known whether he ever proposed any elevations.

133. T1/6380A/15699; Works 2/25, pp.188-9; T1/6321B/16295; T26/3, pp.245-6, 274.

134. T1/6380A/15699.

135. Works 1/72, pp.224-5; Works 2/28, pp.176-7.

136. Pennethorne was paid for his design in 1864: Works 2/28, pp.176, 190.

137. Needham & Webster, Somerset House, p.259.

CHAPTER 8 OTHER OFFICIAL BUILDINGS (Footnotes on p.436)

(a) Record Office and Legal Buildings

THE PUBLIC RECORD OFFICE

A nation's image of itself owes much to its awareness of its history. The history of European states could not be written without their government archives, and the care of these archives is tied up with the very principle of nationality. By the early 19th century, England had accumulated a very rich collection of archives, and as historical research increased the care of these documents came under closer scrutiny. At the same time, as the scope of government grew, the number of records increased remorselessly([1]).

The condition of the public records first began to be brought to the attention of governments in the early 1820s ([2]). There was no purpose-built repository for the English records to match Robert Adam's magnificent Register House for the Scottish papers in Edinburgh. The English papers were scattered among a number of different buildings, only one of which - Sir John Soane's recently-built State Paper Office - was purpose-built ([3]). The inconvenience of this arrangement offended not only the historians and lawyers, but also the tidy-minded staff of the recently-created Record Commission whose task it was to catalogue and publish the papers ([4]). In an age when efficiency and the concentration of government offices appealed to reformers, a plea for a

single building to house all the public records could not fail to attract influential support. It is no accident that a proposal for a General Record Repository should be published by the Record Commission in 1832, the very year in which Parliament itself was reformed ([5]).

The physical condition of the records gave the question added urgency. The destruction of the Palace of Westminster by fire in 1834 gave a graphic illustration of the vulnerability of public buildings. None of the older buildings in which records were stored - notably the Tower, the chapter house at Westminster Abbey, and Rolls House in Chancery Lane - was fire-proof. Some were susceptible to damp and theft. Under an Act of 1838 the last Record Commission was disbanded, and the records placed under the control of the Master of Rolls, Lord Langdale, and a Deputy Keeper, Francis Palgrave, who employed a specialist staff of keepers. Palgrave began consolidating the records by bringing many of those housed at Westminster to Carlton Ride, the former riding-house of the Prince Regent's Carlton House. Here they were arranged and classified by that most vigorous of Victorian civil servants, Henry Cole, but conditions were far from ideal: "A small iron stove, with an iron pipe over a chimney about 50 feet long, was carried up through the roof. In frosty weather [the] aged guardian used to light the stove so vigorously that the iron chimney became red hot, and the old fellow used to sit shivering before it, rubbing his hands until he fell fast asleep"

([6]). The older repositories were in many respects worse ([7]). By the end of the 1830s the provision of a new building was seen as essential to the very survival of the records.

Few people disputed the need for a new purpose-built record office, but it took over a decade to find a suitable site and to arrange for adequate funding. The eventual site on the Rolls Estate between Chancery Lane and Fetter Lane was first suggested by the then Master of the Rolls, Sir John Leach, in 1831 ([8]). In 1837 an Act of Parliament (7 William IV & 1 Vict. c.46) vested the estate in the Crown and gave the Office of Works powers to build a record office there. The estate consisted of a row of old houses fronting Chancery Lane, with an entrance to a courtyard around which were arranged the 18th-century Rolls House, the mediaeval Rolls Chapel, and other buildings; a block of Judges' Chambers stretched back into the garden which spread to Fetter Lane, where there were 20 more houses ([9]). The site had two main advantages: it belonged to the Government, and it was in the heart of London's legal quarter, from which it was assumed that most of the searchers would emerge. Proposals to build a new Law Courts in the area made the site even more attractive, and in 1840 Thomas Chawner was asked to prepare a block plan showing how an office could be built on the site in five stages ([10]). This was the germ of the plan eventually adopted.

It was unfortunate that the Public Record Office was

conceived at about the same time as the more glamorous Houses of Parliament. By 1840 work had already begun on the fundations of the larger building and its vast and increasing cost cast a shadow over all proposals for Government buildings for the next two decades. Since there was expected to be a surplus of space in Barry's building, the Treasury officials suggested placing the records in what was to become the Victoria Tower ([11]). Barry feared that the tower would be abandoned because of cuts in funding, and stated optimistically that, given some pruning of the records, it would be "likely to prove sufficient for several centuries" ([12]). The record officials disagreed with him, but the scheme was not dropped until 1845 ([13]).

Attention now shifted back to the Rolls site, where it was agreed in 1846 not to let any of the houses until the final use of the ground had been determined ([14]). It was at this stage that, in the significant words of Henry Cole, "a public opinion was created" ([15]). Extra-Parliamentary pressures contributed to many of the achievements of Victorian government, and while the question of housing the public records was hardly one to arouse great extremes of passion, it could appeal both to the nation's pride and to the growing belief in the need for efficiency in the management of its affairs. The growth of public awareness of the question brought it to the attention of the Royal Commission for Improving the Metropolis early in 1847, and the Commission's

investigations linked the housing of the public records for the first time to the much broader question of the improvement of communications within London. This question had exercised Pennethorne to the exclusion of almost everything else for the previous eight years, and it was no doubt because of his involvement with London street improvements that he was first asked to prepare a design for what was to become his largest public building.

From the very beginning, Pennethorne was expected to work in strict conformity with the very strong opinions held by Lord Langdale and his staff. He first met Cole in 1845, and towards the end of 1846 he prepared a model of a room which incorporated Cole's ideas on the proper storage of records ([16]). The dimensions of this room, which eventually served as a module for those of the whole building, were largely determined at the insistence of James Braidwood, Superintendent of the London Fire Brigade ([17]). The weight of the documents made it essential to use iron in the structure, but Braidwood pointed out that "... of all building materials [iron] is the most rapidly and most seriously affected by fire". He therefore insisted that the ironwork would have to be clad in brick or stone. The rooms were, as far as possible, to be completely isolated from each other, and Braidwood wanted to heat them by open fireplaces rather than by hot air or hot water pipes, so that ventilation would be improved, and a central furnace rendered

unnecessary. These considerations were the most important factors affecting the design of the building when work eventually began.

Pennethorne's first outline plans were printed, together with a lengthy report, in the 6th Report of the Metropolitan Improvement Commissioners in January 1847 ([18]). They were based on the estimate of shelf space provided by Cole in 1844, and prepared "in great measure under his immediate supervision". There would be 1,370,655 cu.ft. of space for records on two or three floors, together with search rooms and offices. The building would house not only all the present records in store, but also those which would accumulate over the next century. To reduce the danger of fire, the building was to be completely isolated. It would stretch from Chancery Lane across the Rolls Garden to Fetter Lane, from which point a long wing would extend south to Fleet Street, a little to the east of the church of St. Dunstan in the West. Pennethorne's east-west thoroughfare relieving the Strand and Fleet Street would run along the north side of the building, isolating it from the noxious slums of the Bishop of Chichester's estate, "perhaps some of the worst property in London". Both the intended realignment of Fetter Lane and the building of the southern wing would involve extensive purchases of property whose price Pennethorne estimated at £109,107. The gross expenditure, including the construction of the building and the adjoining roads, would amount to half a

million pounds ([19]).

Pennethorne's first detailed plans, submitted in May 1847, envisaged a "massive and splendid, but moderately decorated Building" in the Elizabethan style he had recently employed in New Oxford Street and at Victoria Park. Had they been adopted, the Public Record Office would have been very different from the formidably utilitarian structure eventually constructed ([20]). In the plans the symmetrical main block faces the new street to the north (Plate 105). It is entered through a vestibule and two-storied hall, and there are two-storied top-lit search rooms on either side, with an octagonal library straight ahead. The mediaeval Rolls Chapel to the west stands close to a carriage entrance from Chancery Lane, and the whole of the eastern wing, extending down to Fleet Street, is devoted to the depositories, each one lit by a tall window ([21]). The building would have been more spacious and, probably, more aesthetically satisfying than the present one.

Fears about the cost of Pennethorne's building caused the Russell government to postpone it for two years ([22]). The impasse was finally broken when Palgrave jettisoned Pennethorne's ambitious plans and, together with Milne,one of the then Commissioners of Woods and Forests, and Inman, the Surveyor of Buildings, produced a much simpler and less costly scheme. It was sent to Langdale in December 1849 and forwarded by him to the Treasury with the recommendation that it was "founded

upon principles of the strictest economy" ([23]).

Palgrave's scheme carried utilitarian starkness to a new pitch of refinement. The building was now to be "disengaged from all extraneous considerations whatsoever" - an allusion to the proposed new streets - and to contain only what was "absolutely and not hypothetically needful for the transaction of work and business at the smallest possible expense". It would be entered from Chancery Lane, and would contain only 250,000 cu.ft. of storage space, sufficient to cater for the accumulations of the next fifty years. The Office of Works would determine the style of architecture "and other Minor details", but Palgrave's preference was for the simple Palladianism of the Rolls House, "... which though plain is handsome [and] might be adopted as being the cheapest, and yet sufficiently respectable". The cost was estimated at only £40,000, excluding fittings ([24]).

In the course of long discussions with Palgrave and many visits to existing archives, Pennethorne modified this scheme into something very closely resembling the present building. His conclusions were presented in a lengthy report and a set of drawings submitted in May 1850 ([25]). The proportions of the cell-like depositories still determined those of the whole building. They were 25 ft. long, the maximum length down which light was expected to travel, and 15.5 ft. high, divided by galleries or grated floors into two equal parts, and

reached through iron doors, so that "... nothing but wilful incendiarism committed by a person having access to the building could make a kindling, which would die out before any harm would ensue worth noticing". Following Braidwood's strictures about iron, Palgrave wanted the building to be vaulted with brick or stone, but Pennethorne calculated that each room, including the records, would weigh 90 tons, and pointed out that such huge internal supports and external buttresses would be needed that both space and light would be lost. He therefore proposed resting the floors on wrought iron beams and girders, with rows of brick arches of 5 ft. span underneath to protect them from the heat of any fire that might break out (Plate 106) - the normal 19th-century fireproof construction first evolved in late-18th-century mills, and later extended to complexes of warehouses like the noble Albert Docks at Liverpool (begun in 1841). The use of this method of construction throughout a large public building was still a novelty when Pennethorne proposed it ([26]).

The record depositories took up most of the available space on the three main floors, with a semi-basement (contrary to Palgrave's original wishes) for workshops and the storage of "papers of secondary importance". A broad corridor was to run along the spine of the building. Little space was allotted to search rooms, and the only vestige surviving of the spacious planning of the 1847 scheme was the entrance hall, which

was now to be approached from the south through a passage entered from Chancery Lane (Plate 107) ([27]). The building was designed so as to be erected in five stages, the first or central portion facing the Judges Chambers, the second to the east facing Fetter Lane, and the third on the site of the Rolls House and chapel, facing Chancery Lane. Two more sections were to occupy the space to the south of the main building, but the long southern wing envisaged in the 1847 proposals was now abandoned ([28]). Thirteen years later, after much of the building had been completed, Pennethorne still regretted the abandonment of the 1847 scheme, pointing out that "... in those days we foresaw the necessity for a large library, for large searching rooms ... &c &c.; all these things were washed away by economy, and will hereafter have to be provided at greater cost and with less convenience" ([29]). This has indeed proved to be the case.

Equally unfortunately, the Government's refusal to go ahead with Pennethorne's east-west street meant that the building lost much of the monumental public character originally intended. Attempts in 1853 to build a street along the north front linking Chancery Lane and Fetter Lane failed because the Treasury refused to release surplus funds from the other Metropolitan Improvements. Today the north facade still looks out only on the backs of other buildings and can only be seen in sharp perspective ([30]).

The architectural treatment of this vast warehouse of state documents was strictly determined by its function. Like many classically-trained architects of the 19th century, both in England and on the Continent, Pennethorne was a rationalist, believing that the requirements of modern buildings could be logically and lucidly expressed within the grammar of the orders, ornament being introduced where necessary to enhance the dignity of the building. Here, however, the requirements were so unusual that a different approach was needed. The building consisted of a multitude of relatively small rooms with large windows, arranged on a grid-like plan. Had it been a commercial structure, a strictly functional brick facade would no doubt have sufficed, as in the warehouses of the London docks. But the Public Record Office was to be more than a warehouse; it was, as the foundation stone put it, the "treasure house of the national records and archives", a building which would in some respects embody England's vision of her past. For such a purpose a purely utilitarian exterior would be inappropriate. Neither the classical vocabulary nor the Elizabethan style which Pennethorne had proposed two years earlier could be easily reconciled with the heavy buttresses and large, but thin and narrow, windows that necessity now dictated. Pennethorne therefore concluded that it was "... almost impossible satisfactorily to have recourse to any other than what are called Gothic forms, if an Ecclesiastical feeling can be at the same time

avoided" ([31]).

An early elevation shows a plain stone-fronted block with deep buttresses linked by pointed arches - a motif found in the 14th-century Papal palace at Avignon - and punctuated by crenellated towers ([32]). In his report of May 1850, Pennethorne recommended the inclusion of a clock tower as "an important and conspicuous centre". Despite changes in detail and delays in construction the tower became the most conspicuous feature of the building in its completed form (Plate 108) ([33]).

The Public Record Office was the first major Government building after the new Houses of Parliament to be designed with a Gothic exterior. If it had been completed as Pennethorne intended in 1850, its appearance would have been even more forbidding than it is now. The north facade, as originally designed, was to be very long and strictly symmetrical, and the tower, with its vaguely north European character, would in its original form have introduced a note of nightmarish fantasy. The detailing, like that of the Houses of Parliament, is Tudor, but there is none of the irregular massing and subtle use of decoration employed by Barry and Pugin. The sheer heaviness of the unrelieved elevations, with the monotonous repetition of a single motif - three superimposed windows set within a pointed relieving arch resting on buttresses - is very intimidating, as it was no doubt intended to be.

There is little doubt that the obsessive concern for

security repeatedly expressed by Palgrave and Braidwood communicated itself to Pennethorne, and forced him to design a structure with very adequate "commoditie", almost excessive "firmness" and rather less "delight". Something of the same overpowering massiveness is found in the prisons, workhouses and hospitals which are so characteristic of a period in which ruthless obsession with organisation was combined with a deep underlying fear of social disorder. If Gothic architecture consists of no more than the use of the pointed arch in combination with a strictly functional system of construction and planning, then the Public Record Office is a triumph of the Gothic Revival; otherwise it is difficult to agree with the words of the distinguished architectural historian who wrote that the building was "Gothic of a kind true enough and yet functional enough to have pleased Pugin if he had seen it" ([34]). In fact, the way in which the Gothic detailing is integrated with a very un-Gothic method of construction echoes Schinkel's earlier attempt to evolve a suitable decorative treatment for functional buildings in his architecture school and customs warehouse in Berlin. The detailing there is not Gothic, but there is the same feeling of decorative detailing being applied to a regular grid. In this, as in other senses, the Public Record Office is a precursor of the architecture of the 20th century.

Pennethorne's design was approved in July 1850, and soon afterwards the Commons voted £30,000 as the first

stage of the £45,000 necessary for the first stage of the building ([35]). Lengthy discussion of materials now followed. The original intention was to face the building with Anston stone, which had been used in the Geological Museum. It was soon found that this stone was not available in sufficient quantities, and that Kentish rag would have to be used instead, with Anston only used for the dressings ([36]). This decision increased the rugged appearance of the building, but in the long run it turned out to be fortunate; the Anston stone has now crumbled, but the Kentish rag has weathered well.

The internal construction was of iron, more of which was used than in the famous woollen mill at Saltaire, near Bradford ([37]). Having consulted a number of leading iron founders, Pennethorne proposed that the girders should be made of wrought iron "in the manner now adopted for Railway Bridges the formulae for which are now satisfactorily established". They were to be surrounded by fire bricks, with close-jointed brick arches, and tension bars underneath ([38]). Wrought iron was a relatively uncommon building material at this time, except in bridges and other engineering works, and Pennethorne must have chosen it because of its potentially greater strength. Eventually, though, the high cost forced him to use cast iron girders instead, and a tender from Messrs. Grissell to supply 289 girders for £1698 was finally accepted in May 1851 ([39]).

The glazing of the windows led to more controversy.

Palgrave had originally proposed to use iron shutters as a safeguard against fire and, if necessary, the violence of the mob. He was told by Pennethorne that a strong iron grating and small panes of thick glass would be equally effective. Pennethorne subsequently proposed to use large panes of glass on the upper floors to improve the external appearance of the building and admit more light, but Palgrave protested. It was decided to use iron window frames, or external wrought iron stanchions, instead ([40]).

The first tenders for the building and ironwork exceeded Pennethorne's estimate by some £5000, so he agreed in February 1851 to reduce costs without depriving the building of "... such Architectural detail as is requisite for so large and important a public building as this will become" ([41]). A month later a contract was signed with Messrs. J. & H. Lee of Chiswell Street, the builders of the embankment and the Houses of Parliament, and the foundation stone laid on 24 April ([42]). Pennethorne had originally hoped that the building would be completed within a year, but after vehement protests from the builders that he had underestimated the amount of stone required, it was agreed to extend the time to 20 months ([43]). Some changes to the design of the parapet were made late in 1851, replacing the strange crenellation originally proposed with a lighter and more intricate design (Plate 109a). In August of that year Pennethorne came to an agreement for the carving around

the main entrance with John Thomas, whose experience on the Houses of Parliament made him "a particularly proper person to be entrusted with the work" ([44]). Delays in supplying the stone meant that the carcase of the building was not finally completed until 1853 ([45]).

Indecision about the fittings caused further delays ([46]). A strong room was fitted up in March 1853 to serve as a model for the rest, but a year later no more progress had been made, and the estimated costs had risen to nearly 50 per cent above those contemplated in 1850 ([47]). A contract was signed for the provision of metal doors with ventilators in September 1854, and after some controversy it was agreed to disregard Pennethorne's advice and use slate for the racks holding the records, pushing up the cost further. With a zeal for security that verged on the paranoid, the Master of the Rolls, Lord Romilly, who had succeeded Langdale in 1851, further insisted that each press or case should be enclosed by wire doors, each of them having a separate key. Pennethorne warned that the cost would be "fearful", but Molesworth, the Chief Commissioner, deferred to Romilly's advice, and so committed the Government to an expenditure of £4100 for the shelves and no less than £24,905 for the doors ([48]). Strangely enough, this quite unnecessary expenditure not only escaped Parliamentary criticism, but was also sanctioned by a Treasury whose customary carefulness was already being severely strained by the demands of the Crimean War ([49]). In the event the wire

doors were never even used, and were finally consigned to Somerset House. As a result of these delays, the building was not finally opened until 1859 ([50]).

Surrounded by old and small houses, with no facade onto any major or even minor street, and its tower still unbuilt, the first part of the Public Record Office did not present a very imposing appearance to the outside world. A writer in the Saturday Review in 1855 thought that "the general effect combines the workhouse, the jail, and the Manchester mill. The style is meant to be Tudor, with every large feature and every detail of that style misapplied and distorted... [It is] profoundly contemptible" ([51]). To the Building News it was "... a strange monument of self-defeating ingenuity. It was built for fear of fire, by which the public records have never yet been destroyed, and in disregard of damp, the critical enemy of our public records" ([52]). A few years later J. S. Brewer, professor of English and lecturer in History at Kings College, London, was commissioned to prepare a Calender of the State Papers of Henry VIII. He found the interior "... even less attractive than the exterior. A square vestibule, badly lighted, conducts the visitor to a number of narrow passages flagged with brick; iron doors to the right and left, marked with cabalistic numberals, and furnished with small circular ventilators, divide these passages with geometrical exactness... No thought of beauty or general effect has entered the mind of the architect, or, rather has been

permitted to enter it... One thought, that of security, has absorbed all other consideration" ([53]). Many later historians must have shared these sentiments.

Long before the new building opened, it had become obvious that it would not be large enough to house all the public records, which from 1852 included those of all the government departments ([54]). Pennethorne sent in drawings for the east wing in 1854, but it was repeatedly postponed because of what the Treasury described as "more pressing needs" ([55]). The demolition of Soane's State Paper Office in 1862 to make way for the new Foreign and India Offfices in Downing Street made the extension even more necessary, but the Treasury insisted on building only the southern part of the wing. Pennethorne produced a design in October 1862, costing an estimated £30,000 ([56]). Work began a year later, and the building was ready by the early summer of 1866 ([57]).

The east wing as built differs in several respects from the scheme envisaged in Pennethorne's design of 1850. He proposed at first to use Anston or Mansfield stone, but he discovered after signing the contract that the Anston quarries had ceased working, and that the proprietor, an old man, was refusing to open them again. He was therefore forced to use blocks of already-quarried stone for the part of the building nearest the centre range, with Mansfield stone on the north facade, and Portland on the front facing Fetter Lane (Plate 109b), which could not be seen with the rest of the building

(58).

Internally, there were even greater changes. No special provision was indicated for search rooms in the original plans, but by November 1856 a search room was being planned on the site of what became the Legal Search Room (the present Long Room) and another of similar dimensions on the north facade of the eastern extension (59). By 1862 the northern search-room had been abandoned in favour of a circular top-lit room in the middle of the new block (60). This Literary Search Room (now called the Round Room) not only provided extra space for the public; it also gave the building its one internal space of any distinction (Plate 100). Two-storied, with a gallery and a domed roof of glass and iron (Plate 111), it makes the most of the awkward site and in its frank use of structural ironwork recalls the interior of Bunning's Coal Exchange, now demolished. The absurd rule against central heating had now been abandoned, and the two search rooms were heated by water pipes heated from an adjacent furnace (61).

The provision of adequate search-rooms at last gave the Public Record Office some of the qualities of a major public building, and the building of the Fetter Lane facade gave it its first street frontage. The building of the tower (Plate 112a) in 1865-7 gave it its most distinctive external feature. The decision to proceed with the tower came about less for visual reasons than because of the need for a water tank to quell any

fire that might break out now that the taboo on central heating had been relaxed. The decision to house the tank inside the tower may have driven Pennethorne to replace the strange superstructure originally intended with the present much more attractive upper storey, with its four corner turrets of English late-mediaeval character ([62]). The parapets are broken by lower turrets containing statues of queens, including Queen Victoria, carved by Joseph Durham. Work started late in 1865, and the tower was finished by August 1867 ([63]).

The last part of the building to be completed in Pennethorne's lifetime was the northern part of the east wing, with its two tower-like projections. He submitted plans in May 1866 ([64]), but the money was not voted until 1868. Work began in 1869 but stopped in the autumn when Sir Thomas Duffus Hardy, Palgrave's successor as Deputy Keeper, demanded the addition of a larger staircase turret at the corner of the eastern tower flanking Fetter Lane ([65]). The addition having been approved, Pennethorne produced a design for the turret on 13 December, and the wing was completed early in 1870 ([66]).

The exterior (Plate 112b) is somewhat less gaunt and forbidding than Pennethorne had envisaged in his first design. The main floors follow the same lines as the central block, but the crenellations on the towers are replaced by more delicate parapets with ogee-topped turrets at the corners, like those of the Tudor royal chapels. The same motifs were used by Sir John Taylor

when he built the Chancery Lane range 25 years later.

While the east wing was being completed, Pennethorne turned his attention to the eventual completion of the building. In December 1868 he produced a detailed plan showing a west wing balancing that on the east, containing two more search rooms and a new public entrance from Chancery Lane. More record depositories extend east from this wing to Fetter Lane, where there is another turreted block, and a screen of columns linking the two blocks at the Fetter Lane end ([67]). A drawing of the Chancery Lane front shows a tall tower over the entrance, with a turret like that originally planned for the main tower in 1850 ([68]). Lord Romilly objected to Pennethorne's scheme because it involved the demolition of the Rolls Chapel, and later in December 1868 the architect produced another scheme preserving the Chapel, though altering its walls and incorporating it in the main building ([69]). It was this final scheme which, with certain variations, formed the basis of the present Chancery Lane block built to the designs of Sir John Taylor in 1891-6 ([70]). Taylor's block (Plate 113) matches Pennethorne's building, but in the event he wisely decided to abandon the tall tower, replacing it by a lower structure rising only one storey above the main block. As a result, it fits in much more happily with the other buildings in the relatively narrow street.

Pennethorne's proposed south range between Chancery Lane and Fetter Lane was never built. An attractive but

undated watercolour, probably not by Pennethorne, shows the courtyard closed by two almost Bodley-esque lower blocks faced in smooth ashlar ([71]). The building of these blocks would have given the building an almost collegiate character and would, at a stroke, have given the design a coherence which it had lacked ever since the decision was taken not to put the main entrance where Pennethorne had first intended it, on the north side of the building. But there is no evidence that the quadrangular scheme was ever taken seriously, and the building is now L-shaped, the two wings enfolding an empty and featureless space surrounded by undistinguished 20th-century offices.

The decision not to build extra depositories on the Rolls site not only gave the building a somewhat truncated appearance. It also ensured that, with the huge growth in government activity which has characterised the 20th century, it would rapidly become overcrowded. The idea of expanding the building was not finally abandoned until the 1960s, when it was decided to build a new Public Record Office at Kew eventually opened in 1977 ([72]). In its adoption of supposedly practical considerations to the exclusion of virtually any others, this monument to the functionalism of the 1960s may yet prove more than a match for Pennethorne's building.

Of all Pennethorne's buildings, the Public Record Office is perhaps the most difficult to appreciate. Unlike many more superficially attractive buildings, the

interest lies not so much in its decorative detail, as in the construction, and above all perhaps in the way in which it was designed. 19th-century architects were generally accustomed to take full responsibility for both the practical and the aesthetic aspects of their buildings. But as society became more complex, the buildings larger, and knowledge more copious, this omnipotence became more and more difficult to sustain. Many of the decisions about the form and construction of the Public Record Office were made by outside experts. Pennethorne had a similar role to that of Lutyens in his bank buildings of the 1920s, or Giles Gilbert Scott in the New Bodleian Library at Oxford. He planned the building and styled it so as to evoke its purpose and to fit in with its surroundings. In this respect, the Public Record Office broke new ground in government patronage of architecture. For this reason, as well as for its construction, and its formidably impressive exterior - all the more impressive after the recent cleaning - the Public Record Office deserves a more important place in 19th-century architectural history than it has hitherto been given.

THE STATIONERY OFFICE

The Stationery Office was established in 1785 as part of the widespread changes in administrative

machinery which went by the name of "Economical Reform". The earlier system under which government papers were printed by private individuals on a contract basis had long been identified as a source of corruption. The papers were now to be printed by the government's own offices under the strict control of the Treasury.

The Office took over premises on Crown property in James Street, Pimlico (now Buckingham Gate) in 1820 ([73]), but the rapid growth of Government business and Parliamentary enquiries soon made them inadequate, and large sums were incurred in renting storage space. The Comptroller of the Office, John Ramsay McCulloch, a well-known writer on statistics and questions of political economy, told the Office of Works in 1851 that the accommodation in the various buildings was "... defective in various particulars, and more especially in the want of proper accommodation for Packing, and for the loading and unloading of Waggons" ([74]). Warehouses were rented in no fewer than eight different places. With the concentration of Government buildings a potent rallying cry for tidy-minded utilitarians, demands grew for a new building in which the various functions of the Office could be combined.

The building in James Street was finally vacated because of the growth of the adjacent Ordnance Barracks (now the Wellington Barracks) ([75]). The expansion involved the demolition of the James Street office, but a new home was found in an existing building, the

Parliamentary Mews in Princes Street, Westminster, close to Westminster Abbey (Plate 114a). The Mews had been built on Crown property in 1825 to the designs of Decimus Burton, and provided stabling for M.P.s around a quadrangle ([76]). The building presented an impressive Greek Doric facade to the street, but it was not a financial success, and by 1851 it had become something of a white elephant, with much of the stabling empty and part of the building in use as a police barracks ([77]). By taking it over, the Stationery Office hoped to concentrate its operations in one place, while ridding the Crown Estate of an under-used building on a central site. Although Burton was still alive, Pennethorne, as the established Government architect, was asked first to estimate the building's capacity, and then to send in a scheme for converting it into a Stationery Office. His estimate, delivered in September 1851, came to £9,900, with a further £10,000 needed for fittings ([78]).

It took over three years to carry out the work. The Treasury approved Pennethorne's scheme in March 1852, and arranged for two annual votes of £10,000 to be presented to Parliament ([79]). With Parliamentary Papers being turned out at an ever-increasing rate, McCulloch now had second thoughts, and told Pennethorne to raise the floors of Burton's building, while transferring the proposed warehouse in the central courtyard to the east range ([80]). These changes made it necessary to alter the facades, and to insert cast-iron columns to support the

new floors, and concrete foundations to bear the extra weight. The cost now rose to an estimated £18,000 ([81]).

The new estimate invoked an angry riposte from the Treasury officials. Pennethorne, they said, had caused "great public inconvenience" by underestimating the cost of the alterations; the revised scheme was so different from that originally approved that the proposed move to Princes Street might have to be abandoned ([82]). Pennethorne insisted that the proposed alterations had been sanctioned by McCulloch, and that any other solution would increase the expense even more. He claimed that his estimates had "scarcely ever been exceeded, and [that] the Ordnance Office, the Liverpool Post Office, and the Record Repository - which are the most important buildings upon which I have lately been employed, and are all approaching to completion - will be built within their respective Estimates" ([83]). A compromise was finally reached after the Chief Commissioner, Sir William Molesworth, told him to simplify his proposed facade to Princes Street, which was now to be "... of brick and of the plainest character" ([84]).

Work began on converting the north, south and west sides of Burton's quadrangle, leaving the east side until new funds had been voted by Parliament. Pennethorne sent in his working drawings in June 1853, and a month later a tender from Messrs. Piper for £11,524 was accepted ([85]). Piper's workmen decided to go on strike just as work was due to start in September, an occurrence described by the

firm's solicitors as "almost a custom", but carriages were being removed from the building in October, and work got under way soon afterwards ([86]). Pennethorne sent in drawings of the proposed new east range in November, and a month later Messrs. Piper offered to build it for £8360, an offer which the First Commissioner, Sir William Molesworth, recommended the Treasury to accept, despite the departure from the competitive tendering usually adopted on Government buildings ([87]). With the structural work approaching completion in June 1854 , Pennethorne told Molesworth that he expected the total cost, including fittings, to come to £30,000. The building was finished except for painting by March 1855, and the establishment was removed in the summer ([88]).

Like the Public Record Office, Pennethorne's Stationery Office was conceived as a utilitarian building, part factory, part warehouse. Decorative flourishes were kept to a minimum. There was no need for the building to "tell a story", and Pennethorne was allowed to employ the restrained classical manner in which he was most at home. Architecturally, the most important feature was the three-storied 15-bay Italianate facade of brick to Princes Street (Plate 114b), an essay in the simple, well-proportioned manner of the Geological Museum and the Ordnance Office - a contrast both to Burton's monumental Grecian facade which it replaced, and the more eclectic buildings Pennethorne was to design a few years later. The courtyard and sides of the building

were of the utmost plainness, recalling the almost vernacular style of functional industrial building which the 19th century inherited from the Georgians. The Office was demolished in 1952 and its site, having served for a long time as a car park, is now occupied by a conference centre.

THE PATENT OFFICE

The Patent Office was a by-product of that remarkable flowering of ingenuity which helped transform 19th-century Britain into the world's first industrial nation. During the early heroic days of industrialisation patents were granted only after a bewilderingly complex procedure involving applications to no fewer than nine different offices. Complaints about the inefficiency of this method led in 1851 to the setting-up of a Select Committee whose recommendations were embodied in the Patent Law Amendment Act of 1852. Under this legislation a single Patent Office was set up, with its own Commissioners and staff.

The new office was opened in December 1852. It occupied premises to the south of Staple Inn, Holborn, attached to no.25 Southampton Buildings, a Palladian structure built in 1792 for the Master in Chancery and the Secretaries of Bankrupts and Lunatics ([89]). There followed a familiar process of overcrowding leading, after long delays, to piecemeal alterations and, eventually, total rebuilding. From the very beginning

the Patent Officers had to share their building with Chancery lawyers. Matters were made much more desparate in 1853 when, after pressure from the Prince Consort and others, a library - the nucleus of the present Science Reference Library - was set up. Under the guidance of Bennett Woodcroft "the father of the Patent Office", it soon became the only scientific library freely open to the public in England ([90]). At first the library was housed in a dimly-lit seven-and-a-half foot wide corridor which became known as "The Drainpipe" or "the Sewer" ([91]). By 1864, books were being stored on floors, tables and passages, and the store rooms had become so overcrowded that the floors were sinking ([92]).

A call for extra accommodation was first made in 1853, and in 1857 the Attorney General suggested building a new office on the site of the present Law Courts ([93]). The question was referred to the Office of Works, but in 1858 Henry Arthur Hunt, Pennethorne's successor as Surveyor in the Office, told the Treasury that the only suitable site was at the recently acquired Burlington House where a suitable building could be constructed for £60,000. Pennethorne was asked to investigate the possibility in further detail, and in July he delivered four sketches to the Chief Commissioner, Lord John Manners, showing how a Patent Office could be built on the Piccadilly side of the front courtyard ([94]). This idea was abandoned after Lord Derby's administration fell from power in 1859 ([95]).

The Clerk of Patents now suggested that the surplus fees from patents, amounting to some £20,000 to £25,000 a year, might be used to pay for a new building either on an unoccupied plot of ground in the newly-constructed Victoria Street, or in the early-19th-century Fife House, which stood on Crown property between Whitehall and the Thames ([96]). Official opinion favoured the second option, and in March 1863, Pennethorne prepared two block plans for laying out the site. They show a Patent Office, costing £100,000, with a frontage to a new street - the present Horse Guards Avenue - running from Whitehall to the proposed Victoria Embankment ([97]). There was space behind for a new scientific museum containing the models of patented machines amassed by Bennett Woodcroft ([98]). This scheme was abandoned largely because of the delays in pushing the Embankment Bill through Parliament ([99]).

With the patent fees still accumulating, the Chief Commissioner, William Cowper, now raised the possibility of rehousing the Office closer to its existing site in Chancery Lane, and building a museum at South Kensington on or near the site of the present Science Museum ([100]). Discussion of this proposal in Parliament revealed the by now familiar objections to South Kensington, and a Select Committee was set up to investigate the siting of both Office and Museum. In his evidence Pennethorne suggested that the best site for a new Office would be on the slum property to the north of the new street he still vainly

hoped would be built between Chancery Lane and Fetter Lane, to the north of the Public Record Office. The Committee, however, recommended that the surplus revenue of the Patent Commissioners - now £210,044 - should be used to build a new Office and library on the existing site in Southampton Buildings, extending south towards Tooks Court and Cursitor Street ([101]). The Museum was to stay at South Kensington, but since no money was forthcoming for a new building, the collections remained in the "Brompton Boilers" until early in this century.

The Select Committee's recommendation to build a new Office was soon set aside, and at the suggestion of the Lord Chancellor, Pennethorne was asked early in 1865 to estimate the cost of adding a new library to the existing building at roof level; extra space for the Office staff would be provided when the Chancery lawyers moved into the new Law Courts to be built in the Strand ([102]). In July 1865 he was authorised to proceed with building a library with a fireproof floor at a cost of £8800 ([103]). In December 1866, after requests for further accommodation, he recommended building five more rooms in the roof-space, but this extension was not carried out until 1885-6 ([104]). The library was finally opened in May 1867, the total cost amounting to some £15,000 ([105]).

The new library was planned like a basilica, with a arched "nave" of four bays containing the readers' desks flanked by "aisles" containing the bookcases. There were offices at either end of the room. There was no

embellishment outside. As in Wren's St. Mary-le-Bow - or the Basilica of Maxentius which inspired it - the semicircular-arched roof rested on "piers" articulated by Corinthian "columns", with windows in the roof space over the frieze. Here, however, the material was wrought iron (Plate 115). One great advantage of iron over earlier forms of construction was that it allowed the architect to span a wide space without imposing an excessively heavy weight on the existing building. Iron had already been used in a number of the great libraries of the 19th century, notably Labrouste's Bibliothèque Ste. Geneviève in Paris, and Sydney Smirke's British Museum Reading Room. While lacking the grandeur and spatial excitement of these much larger buildings, Pennethorne's library at the Patent Office was a characteristically competent structure built at low cost. The plainness of the construction was relieved by a certain amount of colour and ornament, including the names of eminent scientists painted on the frieze as "... a humble but not inappropriate sort of Walhalla" ([106]).

Pennethorne's library soon became as overcrowded and inadequate as its predecessor. A Select Committee of 1897 recommended the total demolition of all the existing Patent Office buildings, described as "the dingiest, dirtiest and most ill-suited public building in London", and their replacement by a new office on the site, extending onto adjacent property ([107]). The architect for the reconstruction was Pennethorne's successor at the

Office of Works, Sir John Taylor, and it is his impressive three-storied galleried iron-roofed library of 1898-1901 which now houses the Science Reference Library.

THE PROBATE OFFICE

Until the passing of the Court of Probate Act of 1857, testamentary matters came under the aegis of a bewildering variety of ecclesiastical courts. There were no fewer than 400 places for depositing wills, of which the most illustrious was the Prerogative Court of Canterbury. It occupied the College of Advocates, or Doctors Commons, a collection of dilapidated late 17th-century buildings on the south side of Knightrider Street in the City of London, south of St. Paul's. This Dickensian institution contained several courts, the Prerogative Court of Canterbury, and housed many thousands of wills including those of Shakespeare and Napoleon ([108]).

The Act of 1857 established some 40 new provincial registries to replace the old ecclesiastical registries, but left the principal registry in its new secular guise at Doctors Commons. The premises here were already overcrowded; the increase of business which followed the concentration of the courts made the overcrowding chronic. Searchers consulted wills in the Prerogative Office, a long narrow room behind nos. 3 - 6 Knightrider Street, from which a strong-room projected

south ([109]). The obvious solution was to expand into the remaining parts of Doctors Commons to the east, and in July 1857 the Treasury agreed to propose a vote of £60,000 for the purchase of the whole set of buildings ([110]). Pennethorne was asked to value the property, and H.A. Hunt to negotiate the purchase, but the lawyers who owned it demanded an excessive price, and negotiations were broken off in the late summer ([111]).

The government now prepared a Bill for the compulsory purchase of Doctors Commons, and in April 1859 Dr. Bayford, the Principal Registrar, told a Commons Select Committee that if extra accommodation was not provided the work of his office would grind to a halt ([112]). The Bill was presented to Parliament in the summer of 1859, but it aroused considerable opposition in committee on the grounds of cost, and although it became law as the Probate and Other Courts Registries Act, the Chief Commissioner, Lord John Manners, chose to mollify parsimonious M.P.s by purchasing only the Prerogative Office, together with the adjacent houses (nos. 3-5) in Knightrider Street ([113]). Pennethorne was now asked to enquire into the possibility of adapting these buildings and at the beginning of the following year he sent in proposals showing how the search room could be enlarged and the storage accommodation doubled at a cost of £30,000 ([114]). His plan was only partially carried out. A new strong room costing £2500 was built to his design in 1860, other minor alterations following in 1861, but

overcrowding still remained a serious problem, and in 1864 the staff of 150 were said to be "paralysed" by the lack of room ([115]).

By now the plans for the construction of the Victoria Embankment had been unveiled. As part of the related improvements, a new street (Queen Victoria Street) was to be built by the Metropolitan Board of Works from the eastern end of the Embankment at Blackfriars Bridge to the Bank, passing through Pennethorne's new strong-room. Dr. Bayford thought that the building of the new street offered an excellent opportunity of moving the whole establishment to a completely new site. Alternatively, it could expand into the rest of Doctors Commons, which the Metropolitan Board of Works would in any case have to purchase in order to build the new road ([116]). The Chief Commissioner, William Cowper, opted for the second solution, and in November 1864 Pennethorne proposed constructing new offices in the angle of Queen Victoria Street, Addle Hill and Knightrider Street, together with a new strong room one and a half times the size of the existing one, at a total cost of £34,000. Netotiations for the site dragged on for over a year, but in June 1866 he sent in working drawings (Plate 116) showing an enriched facade of three stories with an impressively forbidding round-arched entrance on the heavily rusticated ground floor which has a pronounced batter ([117]). Though not very large, the design is evidence of the powerful monumentality of the

architect's later manner.

In the event, the only part of Pennethorne's scheme to be constructed was a new strong room, begun in 1868 and completed by the middle of 1869 ([118]). Gladstone's first administration overturned the rest of Pennethorne's plans after deciding on a new Admiralty extension at Spring Gardens. This freed a great deal of space on the river front of Somerset House, and in 1874 the Probate department moved into the building ([119]). The remains of Doctors' Commons sank into further decrepitude, and today the site is occupied by the massive Faraday Building of 1932.

THE LAW COURTS

England's antiquated legal system was a target for reformers from Bentham to Dickens. As in so many cases, the haphazard, ad hoc, nature of the system was reflected in the buildings. As more and more demands were placed on the law in the mid 19th century, the buildings came to seem correspondingly inadequate.

Ever since mediaeval times the main civil cases had been heard at Westminster Hall and adjoining buildings. Lesser courts were scattered around the capital, especially near Lincolns Inn, adding extra costs and frustration to the many vexations which have always attended litigation ([120]). Starting in 1820, Sir John Soane designed a characteristically ingenious series of

new courts and offices alongside Westminster Hall, but they soon became full to capacity, and in 1841-2 Charles Barry prepared plans for concentrating the Courts in a new Grecian building on the site of Lincolns Inn Fields, close to the Inns of Courts and the main haunts of the lawyers ([121]). The scheme was discussed by a Commons Select Committee, but was shelved, and in 1845 Barry prepared another proposal for a Gothic building on the site a little to the south, between Carey Street and Fleet Street ([122]).

The new site not only had the advantages of not ruining a valuable open space in the heart of a very crowded area; it also promised to remove one of London's worst slums, so fulfilling one of the main objectives of Metropolitan Improvement. Pennethorne, a connoisseur of low neighbourhoods, later told another Select Committee: "I have known most of the bad properties in London, and I do not know that I have met with any worse than in some parts of this" ([123]). Demolitions for the new streets of the 1840s made overcrowding worse, and by 1865 an average of 15 people, many of them unemployed, lodged in each of the rickety, badly-maintained, mostly timber-framed buildings ([124]). Pennethorne had already rerouted his proposed but abortive new street linking the West End and the City to run along the lines of Carey Street, to the north of the proposed new Courts ([125]). The new building could therefore be accessible from two main thoroughfares.

The idea of building new courts at Carey Street languished until the year of Barry's death, 1860. A Bill to acquire the 7.5 acre site was passed in 1861, but in the following years the Commons refused to vote the money. A new money bill was introduced in 1864 after the Palmerston government had established that some of the very considerable costs could be met by the use of the Suitor's Fund made up of accumulated legal expenses ([126]). Pennethorne was not involved in the detailed discussions about the Bills of 1861 and 1862, but Cowper now asked him to prepare a new plan of the site and to estimate the cost of purchase and of constructing suitable buildings ([127]). He submitted a block plan of the site together with estimates and two detailed sets of plans for buildings in February 1865.

There is no evidence that Pennethorne was ever seriously considered as architect for what was to be the largest and most expensive Government structure after the Houses of Parliament. No Chief Commissioner would want to repeat the fiasco over the Government Offices scheme in Whitehall. Despite his awareness of the shortcomings of architectural competitions, Cowper had no choice but to hold one for such an important building. Pennethorne said himself that his plans were intended, like those for the Admiralty a few years earlier, to be "a ground work for discussion hereafter", and any recurring doubt was removed by a Commons statement in March, 1865 ([128]).

Pennethorne proposed placing the main courts on

a 4 to 5 acre rectangular site bounded by Carey Street, Bell Yard, Fleet Street and a new street to the west which he hoped might eventually form part of a major thoroughfare leading north to Holborn; a new Probate Office could go further west. The main building, costing an estimated £1.5 million, would house 18 courts. They could be placed in top lit rooms on the first floor and reached through a spacious central hall as large as Westminster Hall; the numerous ancillary rooms could go underneath and around the courts. The arrangement is similar to that proposed by Barry in his Lincolns Inn Fields scheme, as well as by most of the entrants in the competition which was eventually held in 1866 ([129]). It would be interesting to compare Pennethorne's plans with those of the competitors, but unfortunately they have disappeared. It is therefore impossible to say how far they influenced Cowper's successors when they came to choose the final design by G.E.Street, one of the last and greatest monuments of the heroic phase of the Gothic Revival.

(b) Educational Buildings

THE STAFF COLLEGE, CAMBERLEY

The Staff College was founded in 1858, in the aftermath of the Crimean War. The War was widely

reported, and revelations of incompetent planning brought the state of the army to the forefront of public debate. Parliamentary enquiries undertaken during the war revealed that Britain was spending only £1300 a year on military education, compared with £46,000 in France and £127,000 in Austria. Such a state of affairs was bound to pose a severe threat to the Pax Britannica in future, more technological, conflicts.

Sidney Herbert, Lord Aberdeen's Secretary at War, first urged the conversion of the Senior Department of the Royal Military Academy at Sandhurst into a separate staff college in 1854. His proposal was taken up at the end of the war by Lord Panmure, Secretary for War in the Palmerston administration. Panmure had already instigated reforms in the War Office. Now, in 1857, with the backing of the Prince Consort, he set up a Council for Military Education under the chairmanship of the Commander in Chief, the Duke of Cambridge. The Council established the Staff College, drafted the syllabus, and decided that the new establishment should remain at or near Sandhurst, to protect the officers from the distractions of London. It was opened in temporary premises in the west wing of the Royal Military Academy in 1858 ([130]).

The question of providing new and permanent accommodation was first raised in April 1858, when the Office of Works was asked to investigate the possibility of building a separate staff college for at least 30

senior officers ([131]). Lord John Manners, the Chief Commissioner decided against a competition, and instructed Pennethorne to prepare plans and estimates ([132]). Pennethorne had already dealt closely with the War Office in drawing up plans for new buildings in Pall Mall, and Manners may well have seen the Staff College commission as a consolation for the abandonment of that plan. £20,000 was voted in the Army estimates of 1858, and in June Pennethorne was asked to prepare detailed designs in consultation with Sir Harry Jones, governor of the Royal Military Academy ([133]).

The site chosen for the new building was about a mile to the south-east of the Sandhurst Academy, close to the London-Portsmouth road, from which it was screened by trees. It was to face west, overlooking woodlands and a lake, and was to house 40 officers, each of whom was to have two rooms, together with their servants ([134]). Pennethorne sent in a set of plans and a front elevation in July, but the estimated cost of £125,000 was dismissed as excessive by the Duke of Cambridge, and Pennethorne was told to consult the Council for Military Education with a view to preparing new plans for a building costing less than half that sum. A new set of plans was therefore forwarded to the War Office in November, formulated with "the greatest possible regard for economy" - a familiar refrain - with red brick facades, a plain eaves cornice and no stone dressings of any kind. The cost was now estimated at £70,000 ([135]).

For once in Pennethorne's career, the demands of economy did not prevail, and this spartan scheme was superseded in the spring of 1859 by a much more splendid design which was carried into effect over the next three years. The occasion was the transfer of the buildings at Sandhurst from the care of the Office of Works to the direct management of the War Office ([136]). With the straitjacket of Treasury control removed, the soldiers and civilian administrators decided to build a structure commensurate with the prestige of an army which had recently, for all its shortcomings, emerged on the winning side in a major European war. Pennethorne was now asked to prepare a new set of designs. They were shown to Prince Albert, who had shown a strong interest in the foundation of the college, and were subsequently approved by the Queen ([137]). The foundation stone was laid on 14 December 1859, but since the Office of Works was no longer in control, work was supervised not by Pennethorne but by Colonel Chapman, of the Royal Engineers ([138]). The building was finally completed in 1862 ([139]).

The Staff College was the first of two commissions Pennethorne received for educational buildings. Most schools and colleges in mid-Victorian England looked back stylistically to the mediaeval collegiate tradition,but at Camberley both the plan and the elevations were conceived entirely within the framework of rationalistic classicism. The nearest

contemporary parallel is perhaps John Shaw's Wellington College (Berks) of 1856-9, but the architecture there is much less monumental. In its uncompromising and totally non-associational character, Pennethorne's Staff College stands virtually alone among mid-Victorian educational buildings in England.

In plan and even elevation, the college is something like an austere version of Longleat (Plate 117). It is built of yellow brick, with Corsham limestone dressings; the floors are supported on wrought-iron girders. There are three stories - an attic storey was added in 1912-14 ([140]) - and the rooms are arranged around two internal courtyards, with a top-lit atrium-like hall flanked by the main staircases in the centre (Plate 118). Broad and spacious corridors run the whole length and width of the building on the courtyard side, allowing the most important rooms, like the Mess Rooms, to face outwards. The main front, 65 ft. long, is broken up by a central frontispiece and by four-storied pavilions at each end like those Pennethorne had introduced in his final scheme for the government offices in Whitehall. As in that scheme too, the ground floor, the whole of the central three bays and the two pavilions are faced in stone which is applied in bands with deeply-cut incisions between each course. Throughout, decoration is sparsely applied, and subordinated to structural logic.

With its bold interplay of light and shadow

across a rectilinear surface, the Staff College recalls Inigo Jones's words: "solid, proportional according to the rules, masculine and unaffected". Though virtually unknown today, it is a worthy successor to earlier military buildings like those at Berwick, Woolwich and Sandhurst. It is interesting to speculate on what the future of English architecture might have been if designs like this had become the norm for later 19th-century public architecture, rather than somewhat freakish exceptions.

THE UNIVERSITY OF LONDON and the BURLINGTON HOUSE SITE

The University of London grew out of the quest for "useful knowledge" which helped to transform the intellectual and cultural climate of 19th-century England. Distressed by what they saw as the torpid obscurantism of the older universities, a group of Whigs, Radicals, utilitarians and nonconformists founded "the London University" in 1827 to provide "literary and scientific education at a moderate expense" ([141]). The new institution was housed in the stolid Grecian pile now known as University College in Gower Street, Bloomsbury, designed by William Wilkins and opened in 1828. In the same year a rival institution, Kings College, was opened under Anglican auspices in premises designed by Sir Robert Smirke to the east of Somerset House.

In the early years neither King's nor the

"university" in Gower Street had the power to award degrees. As part of their reforming policy, the Whigs agreed in 1836 to grant a charter to a new University of London whose main function was to set examinations and grant degrees. It was to be equal in status to Oxford and Cambridge but "... freed from those exclusions and religious distinctions which abridge [their] usefulness" ([142]). Teaching was to be the responsibility of the two new colleges, the London medical schools, and various other approved institutions, of which there were 51 by 1850, including some in the Colonies.

The University, like many Boards and Commissions established by the Whigs, was in effect a semi-autonomous government department. It had no endowments, three quarters of its Senate was nominated by the Crown, and it was dependent on the Treasury both for its day-to-day expenses and for its accommodation ([143]). For the first thirty years of its life, it occupied temporary premises, first in the north range of Somerset House, then from 1853-55 in Marlborough House, and finally in the newly-acquired Burlington House ([144]). For two years the administrators occupied rooms in the house itself, but in 1857 they moved into the block on the east of the forecourt, where they shared a newly-constructed meeting and examination room at the back of the west block with the Royal Society ([145]).

The University's increasing prestige was reflected in the grant of a new Charter in 1858 which

allowed for the establishment of a convocation of graduates. As it expanded its scope and became better-known, it became more and more conscious of its corporate identity, and began to press its paymaster, the Treasury, to provide it with a purpose-built senate house and examination rooms. Early in 1859, a Senate committee wrote to Lord Derby's Chief Commissioner of Works, Lord John Manners, emphasising "... the importance of giving to the University that place in public estimation which it can never obtain until it shall be provided with an appropriate Edifice belonging exclusively to itself... " ([146]).

It seems to have been assumed from the beginning that the new building would be on the Burlington House site. The house was purchased in 1854 partly because of the possibility of building over the garden to the north and the forecourt to the south. Pennethorne prepared a plan in July 1858 showing how the site could be redeveloped as an academic and cultural centre. Accommodation would not only be provided for the University, but also for the learned societies, the Patent Office and its museum, and the Royal Academy, whose premises in Trafalgar Square were sorely needed by the National Gallery ([147]). In April 1859 the government finally unveiled a scheme, based presumably on Pennethorne's ideas, under which the site would be covered with buildings arranged around two quadrangles, with the Royal Academy occupying a range of new buildings

fronting Piccadilly. The commission was given to Sir Charles Barry's son, Charles, and his partner Robert Banks, but the scheme was scotched by the fall of the Derby government.

The second Palmerston administration complicated matters by its plans to move the National Gallery to Burlington House. Pennethorne produced two plans for the whole site in 1861 (Plate 87), showing a new National Gallery on the ground behind the house, and other new buildings around a courtyard in front ([148]). The National Gallery scheme was quashed after a Parliamentary revolt in June, 1864, leaving the future of the Burlington House site more uncertain than ever. A month later an "influential delegation" representing the University of London told Palmerston that lack of examination space was jeopardising its efficiency, especially in science and medicine, where much of its reputation lay. New examination halls were desperately needed, together with a library, offices and meeting places for Convocation and the Senate. The dons suggested building on the garden to the north of the house, where William Cowper, the Chief Commissioner, had hoped to build his National Gallery ([149]). As a first step, Pennethorne was asked to prepare another block-plan of the site, and in December he estimated that £65,000 would be needed to construct a new building there ([150]).

Nothing could be done until the Government had settled how the rest of the site would be used. Lengthy

negotiations with the Royal Academicians to persuade them to leave Trafalgar Square culminated in a formal offer of ground on the Piccadilly frontage of Burlington House in August 1865 ([151]). Pennethorne had already prepared two elevations showing a proposed treatment of this facade, should the Royal Academy decide to move ([152]). In their monumental quality, and in some of the details, the designs (Plates 119, 120) recall Pennethorne's final scheme for the Government offices overlooking Horse Guards Parade prepared a few years earlier. In both, the facade is articulated by a range of giant free-standing Corinthian columns, with a row of statues in front of the blank attic above the entablature, larger sculptured groups at the corners, and a Grecian temple-like structure breaking through the roofline in the centre. The earlier design includes a plainly moulded, almost Soaneian arch, flanked by openings with caryatids; in the later, more Roman scheme, the arch is treated in a richer and less striking way. Pennethorne's designs are not at all typical of classical architecture in England in the 1860s, and in their power and simplicity, they reveal his debt to the Continental architecture of the Schinkel tradition. Perhaps the only other architect in Britain who could have produced elevations of this character at the time was Alexander, "Greek", Thomson.

In the end it was not the Piccadilly front that Pennethorne was called upon to design, but the other, less important north-facing range to Burlington Gardens.

After much prompting, the Treasury agreed to finance the University Senate House on this site early in 1866. Cowper now asked Pennethorne to contact the University authorities with a view to preparing a design. His first scheme was submitted in March 1866, and the foundations were laid not long afterwards ([153]). Earlier plans to lay out the ground to the north of the house as a quadrangle had now been abandoned, and the building was to be free-standing, with only one important frontage, facing north. A two-storied central block would contain the main University offices, flanked on one side by an examination hall and on the other by a hall for public meetings (Plate 123). The facade would be in the "plain classic" style of the proposed Piccadilly frontages, with a massive Corinthian portico at the centre ([154]).

The layout of the rest of the site was finally settled in August 1866 (Plate 121). Pennethorne had already supplied a block plan of the front courtyard, showing a quadrangle of buildings in front of Burlington House, reached through an opening from Piccadilly - the layout eventually adopted. Cowper, however, made it clear that the buildings would not be designed by a single architect, and that Pennethorne would have to content himself with the design of the university building alone ([155]). After intensive lobbying, Sir Francis Grant, Eastlake's successor as President of the Royal Academy, managed to persuade the new government of Lord Derby to let the Academy take over Burlington House

itself. Here, additions and alterations including the present galleries were designed by the Academy's Treasurer, Sydney Smirke (Plate 122a) ([156]). The space in front of Burlington House, including the frontage to Piccadilly, was given over to the learned societies, whose new premises were designed in quadrangular form by Banks and Barry (122b). Their layout follows Pennethorne's ideas, but the elevations are much fussier than he had intended ([157]).

Pennethorne now became embroiled in a controversy over the style of the university building. In muted form this little-known "Battle of the Styles" recalls the celebrated debate over the government offices of a few years earlier. The Grecian severity of the "plain classic" design did not conform to the taste of the mid 1860s. According to one commentator: "... in his endeavour to keep the style pure, the architect has made more sacrifice than the ideas of the day will tolerate" ([158]). This view was shared by the University's registrar, Dr. W.B. Carpenter, who encouraged Pennethorne to prepare an alternative design in the "Italian Gothic" idiom in August 1866 ([159]). With the Chancellor and Vice-Chancellor of the University both away on holiday, it was shown to the new Chief Commissioner of Works, Lord John Manners, who, according to the architect, supported Carpenter's move to replace the original design with one of "a character more Mediaeval or Renaissance [sic]" ([160]). Manners, the former champion of "Young England",

later said that, far from pressing for the use of Gothic, he "had never directed Mr. Pennethorne to form a design in Palladian, Gothic, Italian-Gothic, Byzantine, or any other style" ([161]). But it does not seem very likely that Pennethorne would voluntarily choose to relinquish the classical manner, in which he excelled, in favour of the Gothic, in which he had only designed one important building. The most probable explanation is that Manners was persuaded, not altogether unwillingly, to choose a Gothic design by the Registrar, and that Pennethorne agreed to prepare one rather than lose the commission.

Pennethorne's Gothic design (Plate 124) is an uncharacteristic but by no means unattractive essay in the eclectic Franco-Italian manner popularised by Gilbert Scott. There is ample "constructional polychromy", and sculptural enrichments abound ([162]). Symmetry was unavoidable because the foundations had already been built, and the front recalls Pugin's celebrated comment on the Houses of Parliament: "All Grecian, sir! Gothic details on a classic body". In place of the facade of giant Corinthian columns indicated in the first designs, the central block was now to have a two-storied elevation with a 100-ft. "campanile" like the ciborium imitated by Scott at the Albert Memorial at each ends. There is a projecting segmental-arched porch, and elaborately carved two-light windows on the first floor. The roof bristles with turrets, gables and ironwork, and the flanking wings are encrusted with ornament like mediaeval jewel-caskets.

Without showing the new design either to the University Senate or to his fellow M.P.s, Manners called upon Pennethorne to prepare working drawings for the ground floor according to the "Italian-Gothic" design, and work began in February 1867. When the design was shown to the University senate for the first time it caused an uproar ([163]). In the following month a resolution was passed that "... a Building of which the style should be in harmony with that of Burlington House would be preferable to that represented in the proposed Elevation" ([164]). A few days later the issue was raised in the House of Commons by A. H. Layard. Eager to harry the minority Tory government, and to publicise his own views on the beautifying of the capital, the excavator of Nineveh persuaded a reluctant Manners to exhibit Pennethorne's design in the Commons library, together with an alternative classic elevation. By departing from the plans approved by Cowper, Layard thought that Manners had adopted "... the extraordinary doctrine that the head of a Department was not bound by [redacted] pledges made by his predecessors in office. That was a most mischievous and dangerous doctrine" ([165]).

Layard's accusation led to a Parliamentary discussion in which Pennethorne found himself in the unusual position of being defended by his former detractor, Beresford Hope. Hope thought that a Gothic University building might be "... a new starting point for metropolitan architecture... The time had come when

the revolt was sounded against the monotonous repetition of Italian architecture in stucco and compo. which had too long defaced our streets. Men were beginning to appreciate the picturesque forms of the Middle Ages, so well adopted to the purposes of our present life". His views attracted little support, and a suggestion by Edward Cardwell, M.P. for Oxford, that both the existing designs should be scrapped in favour of a third, pointed the way to the eventual solution ([166]).

With the walls now up to 19 ft., Manners ordered work on the building to be suspended until M.P.s had had the opportunity to examine Pennethorne's designs ([167]). The drawings were placed in the Commons library on 30 April, but Manners told the House that time was too pressing to allow for the appointment of the Select Committee that some had demanded; instead he would "follow that course which had been taken with regard to the new Foreign Office" ([168]). With public interest aroused, a writer in the Building News questioned how "... an accomplished designer in the Classical style should have been selected to carry out a building of the Italian Gothic type... [There] appears in this instance to have been an unusual want of discretion on the part of those in authority" ([169]). This view of Manners's actions was upheld by M.P.s who voted on 31 May, by 52 to 46, in favour of an amendment by Layard that the £15,000 requested by the Government to continue the building operations at Burlington Gardens should not be used to

carry out the "Italian Gothic" design - an early indication of what was soon to become a universal shift in public taste away from secular Gothic. According to Robert Lowe, soon to be Chancellor of the Exchequer under Gladstone, this design had been criticised "with an unanimity which he had rarely witnessed... Ideas as to the character of University teaching associated themselves with the outlines of the building in which they were lodged... [The Department of Science and Art] had suffered much in public estimation from the simple fact that the public eye connected it with the Brompton Boilers" ([170]). Having tried unsuccessfully to persuade M.P.s to let him seek a revised Gothic design which would allow the parts of the facade already constructed to remain as they were, Manners now bowed to their will and agreed to ask Pennethorne for a completely new design.

The University officials now insisted on having their own say. They had joined in the chorus of disapproval of the Gothic design promoted by their own Registrar, but took fright at what they saw as Layard's attempt to force Pennethorne to build them a reproduction of Campbell's Burlington House. According to Dr. John Storrar, chairman of Convocation, the University should insist on "... its right to be heard in the matter of the elevation and also that the Building should be so designed as to present the features of a separate and individual edifice - that it should be an University building and not an University in apartments, situated in

the rear of a structure called Burlington House" ([171]). This intervention was successful, and the completed facade is very different in character from the other buildings on the Burlington House site.

Pennethorne began work on the new elevation at the beginning of June 1867, "taking the front of Burlington House as a foundation", and placed it in the Commons library on 30 June ([172]). A few days later Manners announced that he had not heard any hostile criticism of the new design, either in public or in private, and that he would instruct Pennethorne to carry it out ([173]). In October the views of the University were once again solicited on the statuary with which the facade was to be liberally provided. Proposals were put forward in March 1868, and were accepted by Manners, after some minor haggling, a month later ([174]). Pennethorne sent in his final set of working drawings in March 1868, and by the middle of April building was proceeding fast under Messrs. Jackson and Shaw ([175]). By the end of the year the estimated sum of £89,000 had been overspent by £5,548, Pennethorne attributing the excess to the delay in starting and the change of design ([176]). Detailed designs for the interiors were not settled until the summer of 1869, and the building was finally opened by Queen Victoria on 11 May 1870 ([177]).

By a skilful sleight of hand, Pennethorne succeeded in converting the romantic Gothic facade of his second design into a thoughtful and highly original essay

in the cosmopolitan classic manner he had been developing since the 1850s (Plate 125a). From the time of his Foreign Office designs he had developed two main vehicles of expression, the one severe and monumental, and the other more exuberant and richly adorned. The "plain classic" design was of the first type, the final design is the best surviving example of the second.

The building has a two-storied elevation flanked by towers, with lower wings on either side. The elaborate but carefully controlled scheme of decoration is imposed on a logical structure of solids and voids, worked out to serve the building's functional needs and to emphasise the system of support. The central block containing the main university offices and the meeting room for the Senate is more elaborately detailed than the rest of the building. The first floor treated as a piano nobile articulated by engaged Composite columns supporting a richly carved entablature, recalling the profusion of Sansovino's and Sanmicheli's work. Further variety is introduced by the projecting Tuscan entrance colonnade, and by the low, flat-topped towers dividing the central block from the wings. Similar towers were used by Cockerell in his since-demolished church in Regent Street, and by Hittorff in his facade of S. Vincent de Paul in Paris. They make less visual sense than their Gothic predecessors, but still contribute to the effect of the building when seen in perspective (Plate 126a).

The wings are simpler and more French in character. They were originally occupied by a lecture hall and an examination room, and are lit by rows of large first-floor windows capable of giving the necessary lighting. The windows are divided by engaged Corinthian columns, and the plain rusticated ground floor relieved by niches containing statues. Slightly projecting buttresses continue up between the windows to the balustraded roof-line - another reminder of the Gothic origins of the design (Plate 127).

The character of the facade owes much to the choice of materials. The walls are of brick, which can be seen exposed on the sides and back of the building, where the polychromatic bands of the Gothic design and the semi-Gothic window-arches were allowed to remain (Plate 126b). On the main facade, though, Pennethorne chose to employ a classical version of "constructional polychromy" with courses of grey Hopton Wood stone interrupting the white Portland ashlar. The columns which are such an important feature of the first floor are of red Mansfield sandstone, and the colourful effect does much to enliven the building.

Much of the effect of the exterior depends on its sculpture. Architectural sculpture has suffered so total a decline in the 20th century that it is difficult for us to understand its importance in Victorian public buildings. The members of the University Senate wanted the building to present an image to the world of a

humanistic, liberal-minded institution which transmitted a culture firmly rooted in a tradition stretching back to the ancient world. It was perhaps this view of their role, and their wish to distance themselves from the older universities, which caused them to object to Pennethorne's Italian-Gothic design.

The facade must be "read" if it is to be properly understood. There are four seated figures over the entrance: Bentham, Milton, Newton and Harvey. They represent Englishmen famous in the four faculties of the University (Law, Literature, Science and Medicine) but not associated with clerical obscurantism. Six standing figures on the roofline of the central block represent "men of ancient times eminent in various departments of study included in the University Courses" (Cicero, Galen, Aristotle, Plato, Archimedes and Justinian). Another six miscellaneous modern worthies stand on the roofline of the two wings, while niches on the ground floor of the wings hold "portrait statues" of notable modern thinkers (Plate 127b) ([178]). Pennethorne was responsible for the choice of sculptors: Joseph Durham for the seated figures over the porch, the younger J. S. Westmacott and W. F. Woodington for the ancient philosophers on the roof. The modern savants in the niches were by William Theed and Patrick McDowell and the other figures on the roofline by Matthew Noble and E. W. Wyon ([179]).

The appreciation of this original and carefully controlled facade is made difficult by the fact that it

faces north, and therefore lacks much of the interplay of light and shadow which is so essential if classical architecture is to look its best. More importantly, it fronts a narrow street, and, like Street's slightly later Law Courts, can only be seen in sharp perspective. It was no doubt this consideration which encouraged Pennethorne to give it its pronounced sculptural quality, to introduce stonework of different colours, to adorn the roof-line with statuary, and to introduce the projecting porch. Today the logic behind the design can only be fully appreciated in the elevation based on Pennethorne's original perspective drawing (Plate 125a) which was published at the end of 1867 ([180]).

The interior showed Pennethorne's mastery of classical planning (Plate 125b). The building was not, according to a writer in the Builder, "one of those too numerous public institutions on entering which the visitor is puzzled as to which way to go, or where to discover what he wants" ([181]). The ground floor is arranged around two intersecting axes, one stretching east to west between the lecture hall and the main examination room (also serving as a library), and the other from the entrance to the staircase leading up to the main rooms on the first floor. Because of the need to cater for large numbers of examination candidates, the cross-axis is a wide corridor with segment-headed arches supporting the iron beams of the first floor. The purpose of this corridor is now lost, and the entrance to

the former lecture room is now closed by an enigmatic stone figure from the British Museum's ethnographic collection (Plate 128a). At each end transverse corridors led originally to smaller examination rooms at the back of the building.

The staircase is the most impressive to survive in Pennethorne's buildings. It follows the "imperial" pattern with a single flight of stairs rising to a landing and splitting into two. Light comes from large windows set in a circular relieving arches (Plate 129a) in a clerestory whose roof is supported on an elaborate arrangement of iron girders hidden by plasterwork ([182]). A large niche on the landing originally sheltered a statue of Shakespeare but now contains a fetishistic cult figure from the South Sea Islands (Plate 128b). It grins malevolently across to what was once the hub of the University's activities, the Senate room (Plate 129b), elaborately embellished in the sumptuous manner already used by Pennethorne at Buckingham Palace and Marlborough House ([183]).

For its date the building was elaborately serviced. On the first floor there was a top-lit anatomical dissecting room with a roof supported on iron trusses, and a laboratory which was "[fitted] up with great completeness, each student having presses, basin, and water to his hand... A "stink closet" in various divisions, is provided for dealing with offensive fumes; and there is a large air-shaft over the top of the room

controllable with dampers..." ([184]). The two largest rooms in the building were the lecture hall and examination hall in the wings (Plates 130, 131). The former had banked seating for 900 people arranged in a semicircle, after the fashion of Gondouin's École de Medicine in Paris (1769), but with galleries supported on iron columns. Both rooms had "admirably constructed" timber roofs, which the Architectural Association on their visit thought "well worthy the student's examination" ([185]). Both rooms were divided up after the University vacated the building in 1900 ([186]).

Pennethorne's University Senate House was his last building, and also one of the last English buildings in the architectural tradition of which he formed a part. James Fergusson thought it was one of the few Victorian public buildings to reconcile successfully the language of the orders with modern needs: "... The details are severely classical, and the form sufficiently monumental for the situation or the purposes to which the building is dedicated, that there is nothing about the building which can be called a sham or anything that can even be reproached as suggesting a falsehood" ([187]).

By the 1860s the classical tradition, still dominant in Pennethorne's youth, had been edged to the periphery of the English architectural world. There was no École de Beaux Arts to maintain classical standards. The great early Victorian classicists, Barry and Cockerell, were dead, and all too often the logic of

classical design disappeared beneath a profusion of ill-digested detail which conveyed a sense of surfeit without exuberance. Pennethorne's University of London building shared in the taste for elaborate surface ornament which characterised the age, but it demonstrated that ornament could be combined with structural logic and clear planning to create a sense of controlled dignity which would express the prestige of a major academic institution. It is in this reassertion of classical values in an unsympathetic age that its interest lies.

1. Kings Works, vi, pp.471-2, etc.

2. R. Ellis, "The Building of the Public Record Office", in A.E.J. Hollander (ed.) Essays in Memory of Sir Hilary Jenkinson (1962) p.9.

3. E. M. Hallam & M. Roper, "The Capital and the Records of the Nation", London Journal, iv (1978) pp. 74-7.

4. H. Cole, Fifty Years of Public Work, i, pp.10-19. The first Commission was appointed in 1800: Hallam & Roper, p.78.

5. Ellis, p.10.

6. Works 2/3, p.367; Cole i, p.23.

7. Works 12/64/1, ff.25-30; Kings Works vi, pp.471-2.

8. Works, 12/67/1, f.4.

9. Works 30/197; PP 1847, xvi, plan 1; Hallam & Roper, p.75; Hobhouse, Lost London, p.111.

10. PP 1847 xvi, pp.31-2; Works 12/64/1, f.37, 24 Sept. 1840.

11. Ellis, pp.10-11; Kings Works vi, p.472; Port, Houses of Parliament, p.109; 1st Rep.Deputy Keeper of Public Records, PP 1840 xxviii. p.6.

12. Works, 12/64/1, ff.21-4; 2nd Rep. Deputy Keeper of Public Records, PP 1841 (sess 2.) i, pp.8, 22.

13. PRO 8/4, ff.21-32; Hansard lxxxi, 27 June 1845, 1335; Ellis, p.12.

14. Cres 19/32, p.255; Hansard lxxxvii, 23 June 1846, 906-8.

15. Cole i, p.31.

16. PP 1847 xvi. p.17; Cole i, p.25.

17. PP 1847 xvi., p.28, Braidwood to Cole, 30 Oct. 1846. Braidwood was first consulted by Palgrave in 1845: Works 2/4, pp.491-2.

18. See also MPI 299.

19. Works 12/64/2, f.29.

20. ibid. ff.31-4; RIBA Trans. 1871-2, p.57.

21. PP 1847 xvi., pp.11, 26 and plan 3.

22. Ellis, p.13.

23. Works 12/64/2, f.1; PP 1850 xxxiv. [571], p.2.

24. Works 12/64/2, ff.2-9; Works 2/8, p.111.

25. Works 12/64/14, ff.17-24; MPD 177, ff.31-40.

26. Works 12/64/2, ff.15-21; MPD 177, f.36.

27. MPD 177, f.33.

28. Works 12/64/2, ff.24-7; MPI 299/6.

29. PRO 8/4, f.41; RIBA Trans 1871-2, p.57.

30. Works 6/147/1, ff.1-5, 20, 55-65; T26/1, ff.113-4; LRRO 1/2059.

31. Works 12/64/2, ff.25-6.

32. MPD 177, f.65.

33. ibid. f.39; MPI 169/4A; MPE 843; Builder, 11 Oct. 1851, p.643.

34. N. Pevsner, Buildings of England: London i, p.102.

35. T25/20, p.94; Works 12/64/2, ff.10-14; /14, f.50; PP 1850 xxxiv. pp.5-6.

36. Works 12/63/14, ff.56-9; Builder 11 Oct. 1851, p.636.

37. Hitchcock, Architecture: 19th and 20th Centuries, p.189.

38. Works 12/64/14, f.57; Works 30/214.

39. Works 1/36, pp.110, 295; Works 12/64/14, ff. 62,65,68.

40. Works 12/64/14, ff.52, 58.

41. ibid. ff.68-9.

42. Works 1/36, f.224; Port, Houses of Parliament, p.98.

43. Works 1/36, p.292; Works 12/64/4, ff.6-9.

44. Works 12/64/7, ff.2-8; Works 30/2585; MPI 172, 14 Feb. 1852.

45. Works 12/64/4, ff.18-21, 26.

46. Works 1/38, p.542; /41, p.807; Works 12/68/14, ff.70-84.

47. Works 1/42, p.391; Works 12/64/14, f.88; Ellis, p.20.

48. Works 1/44, p.444; /45, pp.487, 565; Works 12/64/14, ff.92-105.

49. T26/1, p.235. The expenditure was to be spread over three years.

50. Ellis, p.21.

51. Sat.Rev., 17 November 1855, p.49.

52. BN 6 Feb. 1857, p.147.

53. J. S. Brewer, English Studies (1881), p.2.

54. Hallam & Roper, p.79.

55. Works 17/65/17, ff.5, 21; Works 30/2595-6; 21st Annual Rep. Deputy Keeper of Public Records, 26 April, 1860, p.xxi.

56. Works 12/65/17, ff.46-51.

57. Works 12/65/9, f.6; BN 20 Oct. 1865, p.741; Works 1/81, p.377.

58. Works 1/75, p.257; Works 12/65/9, f.15, 24 Nov. 1863.

59. Works 30/2592.

60. Works 12/65/17, f.49; Works 30/2610, /2633.

61. Works 30/2632.

62. Works 12/65/8, f.1; MPI 169/4A (3); Works 30/2657.

63. Works 1/81, f.100; T26/5, p.334; Works 12/65/8, f. 44.

64. T1/6793A/18528.

65. Works 12/65/17, f.89.

66. Works 1/90, pp.126, 436; Works 30/2723.

67. MPI 169/9.

68. ibid. /5.

69. ibid. /9; RIBA Trans 1871-2, p.57.

70. Hallam & Roper, p.79.

71. Works 30/2655.

72. Hallam & Roper, pp.89-90.

73. P. Cunningham, Handbook to London (1850), p.470; Works 30/2886-2891.

74. Works 12/102/1, ff.15-16.

75. Works 2/10, p.102; Works 12/102/1, f.30.

76. Kings Works vi. p.537; T. H. Shepherd, Metropolitan Improvements (1829), plate facing p.138.

77. Kings Works vi. pp.536-7; Walford, Old and New London, iv. p.34.

78. Works 1/37, p.42; Works 12/102/1, ff.18-19.

79. T25/20, p.250; T26/1, pp.73-5; Works 12/102/1, f.49.

80. ibid. ff.53, 64.

81. ibid. ff.58-60, 16 July 1852. Neither this nor any of Pennethorne's other schemes or working drawings have survived.

82. T26/1, p.4; Works 12/102/1, ff.72-3.

83. Works 12/102/1, ff.77-82.

84. T26/1, pp.73-5; Works 1/40, p.699; Works 12/102/1, ff.101-4; Hansard cxxvii, 19 May 1853, 394-5.

85. Works 1/41, p.656; Works 12/102/1, f.107.

86. Works 1/42, p.216; Works 12/102/1, f.125.

87. T1/5848/25452; Works 12/102/1, ff.130-2.

88. Works 12/102/1, ff.147, 157, 166-8, 186. The final

cost was £25,792: RIBA Trans 1856-7, p.10..

89. H. Harding, Patent Office Centenary (1953), pp.5-11; Works 30/2513.

90. Harding, pp.12-13; Builder, 8 Sept. 1866, pp.663,748.

91. Harding, pp.34-5; BN 5 July 1867, p.457.

92. Rep. Sel. Cttee. on Patent Office Library and Museum, PP 1864 xii. [504], p.vi.

93. Works 2/10, p.822; Harding, p.13.

94. T26/2, pp.236-7; Works 2/19, pp.209, 334-6.

95. PP 1864 xii, pp.9, 24.

96. Works 2/22, p.241; /24, p.218.

97. Works 2/24, p.293; /26, p.861; /27, pp.56-7; T26/3, pp.338, 345; PP 1864 xii. p.95. No elevations were supplied.

98. The models were temporarily housed in the South Kensington Museum: Builder, 14 Feb. 1857, p.89; Harding pp.12-13.

99. PP 1864 xii, pp.9, 98-9; Hansard clxxiv, 17 March 1864, 182.

100. Hansard clxxiv, 15 & 29 April 1864, 1078, 1950-5.

101. PP 1864 xii, pp.v-vi, 96-8.

102. Works 2/28, pp.329-33, 429. The move did not take place until 1882: Harding, p.35.

103. Works 1/79, p.263, 331; T26/5, p.29.

104. Works 2/30, pp.364-6; Harding, p.35.

105. BN 5 July 1867, p.457.

106. ibid.

107. Information kindly supplied by the Science Reference Library.

108. Cunningham, Handbook of London, p.409. See also C. Knight, London Pictorially Illustrated v. pp.1-16.

109. Works 30/1262. There is a picture in Thornbury & Walford, Old and New London, i, p.288.

110. T26/2, p.252.

111. Works 1/59, p.325; Works 2/24, p.376.

112. Sel. Cttee. on Court of Probate (Acquisition of Site) Bill, PP 1859 iii [220], pp.23-7.

113. Works 2/22, p.309; /24, pp.375-6.

114. Works 2/22, pp.308-9; Works 30/2850.

115. Works 1/65, pp.299-300, 306; Works 2/24, pp.96-7, 251-2, 301, 376-7; T26/3, p.9.

116. Works 2/28, pp.134-7.

117. ibid. pp.334-5, /29, pp.443-5; Works 12/52/7, f.1; Works 30/2830-2846.

118. T26/5, pp.263-4, 280; Works 12/52/7, ff.3, 28.

119. Needham & Webster Somerset House p.259.

120. Building News 22 Feb. 1861, pp.151-2.

121. D. Brownlee, The Law Courts: the Architecture of George Edmund Street (Cambridge, Mass, 1984), pp.53-7; Rep.Sel.Cttee on Courts of Law and Equity, PP 1842 [476] x, p.101.

122. Brownlee, pp.61-2; PP 1845 xii, pp.10-11; BN 4 March 1859, pp.200-201.

123. Rep.Sel.Cttee. on Courts of Justice Construction (Site) Bill, PP 1865 xii [124], p.1.

124. Works 12/1, f.153.

125. PP 1847 xvi p.9.

126. Brownlee pp.67-74. A proposal to use the Fund for the Public Record Office had been rejected in 1832: Rep.Comrs... on Public Records, PP 1837 xxxiv.(2) [60] p.xv.

127. Works 1/77, p.336; /78, p.92; Works 12/1, f.119.

128. Works 12/1, f.119; Brownlee, p.74.

129. Works 12/1, ff.143, 148; PP 1865 xii. pp.1-5.

130. E.M. Spiers, The Army and Society 1815-1914 (1980), pp.150-4; A. R. Godwin-Austin, The Staff and the Staff College (1927), p.111.

131. Works 6/186/6, f.56.

132. Works 1/58, pp.181-2; Works 6/186/6, f.55.

133. Works 1/59, p.53; Works 6/186/6, f.63.

134. Works 1/59, p.114; Works 6/186/6, ff.66, 69.

135. Works 1/60, p.226; Works 6/186/6, ff.71. 75-6, 79. The drawings have been lost.

136. Works 6/186/6, ff.83, 131-145.

137. Godwin-Austen, p.118. Some surviving working drawings are kept in the College where they were kindly shown my by Mr. K. White.

138. T1/6693A/3774.

139. Godwin-Austen, pp 119-20, 129.

140. ibid. pp.258-60.

141. P. Dunsheath & M. Miller, Convocation in the University of London (1958), p.1.; Walford, Old and New London, iv. p.569. For the early history of the

University, see N. Harte, The University of London, 1836-1956 (1986), chs. 2 & 3.

142. Letter from Thomas Spring Rice, quoted in Dunsheath & Miller, p.2.

143. ibid. pp.1-5; Hansard clxxix., 2 June 1865, 1210.

144. Needham & Webster, Somerset House , p.235; Dunsheath & Miller pp.156-7.

145. Survey of London xxxi., pp.412, 435.

146. University of London, Minutes of Senate, 9 March 1859, pp.20-22.

147. T1/6251A/9793; T1/6223A/19527; Works 1/59, pp.155-6; Bodleian Library, Disraeli Papers B/XX/M /106.

148. Works 30/529-30.

149. Minutes of Senate 4 Nov. 1863, pp.86-7; 6 July 1864, p.51.

150. ibid. 20 July 1870, p.91 (Memorandum by Pennethorne on the history of the building); Works 2/28, p.381.

151. Survey of London xxxi, p.414; Hutchison, History of Royal Academy, p.122.

152. One drawing is in the RIBA drawings collection, uncatalogued. The other was sold at Sotheby's on 30 April, 1987.

153. Minutes of Senate, 19 April 1865, p.28; 22 Oct. 1865, pp.96-7; T1/6611A/1902; T1/6583C/17698; T26/5, p.115; Works 2/29, p.362.

154. Works 33/1745; Minutes of Senate 20 July 1870, p.91. Pennethorne's elevation has been lost.

155. Works 1/81, p.157; Works 30/542; Survey of London xxxi., p.415; Hansard clxxxiii, 30 April 1866, 192.

156. Hutchinson, pp.122-3; Survey of London xxxii., p.416; J. Steegman, "The Royal Academy's Second Founder", CL 7 June 1962, pp.1372-3.

157. Works 1/82, pp.109-10; Works 30/531; Works 33/1745; Bodleian Library, Disraeli papers, B/XX/M/136.

158. BN 17 May 1867, p.347.

159. Minutes of Senate 20 July 1870, p.92.

160. "Memorandum respecting the General Plans and Designs for the Front towards Burlington Gardens": Minutes of Senate, 20 July 1870, p.92.

161. Hansard clxxxvi, 2 April 1867, 1237-8.

162. A photograph of the design is in the RIBA drawings collection, uncatalogued. The original has been lost.

163. BN 7 June 1867, p.397. See also Builder 8 Sept. 1866, p.664.

164. Minutes of Senate, 27 March 1867, p.27.

165. Hansard clxxxvi, 2 April 1867, 982-3, 1237.

166. ibid. 5 April 1867, 1232-1244.

167. Minutes of Senate 20 July 1870, p.93.

168. Hansard clxxxvii, 9 May 1867, 265-6.

169. BN 7 June 1867, p.397,

170. Hansard clxxxvii, 7 May 1867, 1468-9.

171. University of London archives, RC 28/9, 11 June 1867.

172. Minutes of Senate 20 July 1870, p.93.

173. Hansard clxxxviii, 9 July 1867, 1263-4; Works

1/84, p.288.

174. Minutes of Senate 23 Oct. 1867, p.83; 27 Nov. 1867, p.87; 4 March 1868, p.23; 1 Apr. 1868, p.26.

175. Builder 17 April 1868, p.303.

176. T26/4,p.370; Works 2/33, p.362.

177. Works 30/1785-6 etc.; Survey of London xxxi, p.438.

178. Hume, Hunter, Dalton, Galileo, Laplace and Goethe, on the roofs; Locke, Bacon, Adam Smith, Cuvinier, Leibniz and Linnaeus in the niches.

179. Works 1/85, p.311; /86, p.207; Works 33/1748-1753; Works 33/1756-1806.

180. Builder, 23 Nov.1867, p.855.

181. ibid. 14 April 1870, pp.377-8.

182. Works 33/1793; BN 5 March 1869, p.199.

183. Works 33/1783, etc. Much of the original colouring and detailing has disappeared.

184. Builder, 14 May 1870, p.377; Works 33/1780-1.

185. Builder 5 March, 1869, p.199.

186. Survey of London xxxi. p.439.

187. J. Fergusson, History of the Modern Styles of Architecture (2nd ed. 1873), p.347. There is another favourable account in Dickens's All the Year Round, N.S. iv. (1870), p.182.

CHAPTER 9 (Footnotes on p.478)

BUILDINGS FOR ROYALTY

The royal palaces were the oldest of the responsibilities of the Office of Works. By the time Pennethorne began to work for the Office, royal building was at a low ebb after the excitements of the George IV era. The taste of the young Queen Victoria and her consort ran more to villas than to spectacular palaces. Osborne and Balmoral, the best manifestations of this taste, were private commissions in which the Office of Works played no part.

In the early years of Victoria's reign, most of the relatively little work being undertaken in the older palaces was managed by Edward Blore, who succeeded Nash at Buckingham Palace and Wyatville at Windsor. Pennethorne, as Nash's architectural heir, suffered from the decline in the older architect's reputation after the death of George IV. He had come into contact with the royal palaces at an early age when he was working as Nash's chief assistant, and he may have had a creative role in the design of some of the Buckingham Palace interiors ([1]). But it was not until the 1840s that he received his first independent commissions from the Crown.

The first of these commissions were small in scale and architecturally unimportant. In 1842-4 he

supervised the construction of a block of stables at Claremont (Surrey), for Queen Victoria's cousin Leopold, king of the Belgians. The stables were designed by Thomas Chawner, his partner in the Office of Works, and Pennethorne did not play a creative role ([2]). At the same time he was involved in the construction of some farmhouses designed by Chawner on Crown land at Egham and Englefield Green on the edge of Windsor Great Park ([3]). These minor works were followed by the Windsor improvement scheme of 1846, and the Pimlico scheme of 1851, through which he was introduced to Prince Albert. He took no part in Albert's later building schemes in Windsor Great Park, nor in the alterations to the Castle where Anthony Salvin succeeded Blore as architect. But he played a major role in the expansion of Buckingham Palace, and his work there led on to his other main royal commission, the remodelling of Marlborough House for the Prince of Wales.

BUCKINGHAM PALACE

The main royal residence in central London was the creation of an elderly and impetuous monarch and a protesting but necessarily compliant architect. George IV originally intended Buckingham Palace as a mere pied a terre, or private residence. At the end of his life he changed his mind and told Nash that he wanted to hold his

Courts there, rather than at the dilapidated St. James's Palace, which had been damaged by fire in 1809. But Nash had not provided enough accommodation for the vast numbers of visitors who had to be invited to these ceremonial occasions. William IV refused to live in the new building, preferring the more modest comforts of his old home, Clarence House, in the grounds of St. James's Palace, and Buckingham Palace was not fully occupied until Queen Victoria came to the throne in 1837 (4).

The young Queen soon discovered that there was not enough space in Nash's building for her expanding family and household. Minor internal alterations were carried out in the early 1840s at the instigation of Prince Albert, and in 1843 Blore converted the iron-framed south west conservatory on the garden front into a chapel (5). Two years later, in 1845, the Queen, now the mother of five children, told the Prime Minister, Sir Robert Peel, that expansion was an "urgent necessity" because of "the total want of accommodation for our little family, which is fast growing up...". She also highlighted the need for "a room, capable of containing a larger number of those persons whom [she] has to invite in the course of the season to balls, concerts, etc.," together with improved servants' quarters. She also suggested that the Prime Minister might "make use of this opportunity to render the exterior of the Palace such as no longer to be a disgrace to the country, which it certainly now is" (6).

Peel agreed with the Queen and told the Cabinet that the enlargement of Buckingham Palace to accommodate Court functions could free the site of St. James's Palace for a new National Gallery. In his view, "the present building at St. James's [could not] long remain. It is a great blemish to the best part of London... It would seem much more decorous that the Queen's subjects should wait on Her Majesty at the Palace which is her residence than that she should leave it for the purpose of waiting upon them". Political considerations also intruded. The masses were often restless, the monarchy by no means totally secure in the public's affections, and "... at times of excitement it would be much better that the Sovereign should hold her Levées &c. at the Palace, where she resides, than that she should have to pass and return through an immense concourse of people" ([7]). Pennethorne was therefore asked to prepare a block plan showing a new National Gallery, chapel and private apartments at St. James's Palace, with new streets along the north and eastern flanks of the building ([8]).

The proposals for St. James's Palace did not come to anything, but Peel's government agreed towards the end of 1845 to provide the new accommodation at Buckingham Palace. Blore was once again chosen as architect, and in 1846 he produced a scheme for a new range linking the ends of the two wings which projected east from the main block. The building of the new wing involved moving Nash's Marble Arch, which was taken to

its present site in 1850. Prince Albert, himself an active promoter of the arts, made his own suggestions for the interior design, and insisted on the appointment of Thomas Cubitt, his collaborator at Osborne House, as builder ([9]).

The east range was finished in 1850 (Plates 132, 133), but by this time Blore had quarrelled with the Commissioners appointed by the Government to oversee the work, and had resigned. The new building satisfied some of the Queen's requirements, but on other grounds it was not a great success. The new front to the Mall (Plate 134a), supposedly modelled on the gargantuan palace of the Neapolitan Bourbons at Caserta, was undistinguished and the design was not redeemed by a profusion of small-scale ornaments at roof level. Blore's building was widely criticised, and neither the public nor, one may assume, the royal family, can have been amused when the Caen stone used as a facing material began to crumble and fall off in 1853 ([10]). The range was finally refronted n its present grandiloquent form by Sir Aston Webb in 1912.

Before his resignation Blore provided drawings for a further Italianate extension to the south-west of Nash's main block ([11]). This range was intended to contain a ballroom which would be easily accessible from Nash's rooms, but the plans were not acted upon for fear of imposing too great a strain on the public purse, and provoking unrest. The sale of the Brighton Pavilion in 1851 released funds which made it possible to contemplate

building the new wing without having to ask Parliament for large sums of money. It seems that both Prince Albert and the new First Commissioner of Works, Lord Seymour, first intended to ask Thomas Cubitt both to design and construct the building, taking Blore's designs as a starting-point ([12]). As co-designer of the recently finished Osborne, the task would certainly not have been beyond Cubitt's very considerable capabilities, and in the summer of 1851 he presented Seymour with a series of plans which met with the approval of the Queen ([13]).

Before work could begin, the Kings Scholars' Pond Sewer, which ran through the site, had to be diverted. In March 1851 Pennethorne, in his capacity as architect to the Crown Estate, had submitted plans under which the diversion would take place as part of the Pimlico improvement scheme ([14]). The work started in the summer, and early in 1852 Lord John Manners appointed Pennethorne architect for the new building in Cubitt's place. No reason was given, but presumably Manners felt uneasy about entrusing so important a structure to someone who was technically a builder and not an architect ([15]).

Pennethorne's first designs for the new wing were submitted on 21 April 1852 ([16]). It has been suggested that they represent no more than a reworking of Cubitt's lost drawings, which were probably based on those prepared by Blore in 1845 ([17]). Such suggestions are always difficult to prove or disprove when the

documentation does not exist, and bearing in mind the severe cost constraints demanded by the Office of Works, it is unlikely that Pennethorne changed Cubitt's ground plan fundamentally. But Pennethorne's elevations are certainly quite different from Blore's, and it seems fair to attribute the external design and the detailed layout of the interiors to him alone.

The new range is a plain square structure with two very large reception rooms on the first floor, a Ballroom and a Supper Room, 45 ft. high, linked by spacious corridors to the main building ([18]). One of these corridors, the Promenade or East Gallery, gives access from the main staircase at the southern end of Nash's building; the shorter Approach Gallery gives access to Nash's State dining room, thus forming a circuit. In this way Pennethorne completed the transformation of what had once been a private nobleman's house into a full-scale palace capable of accommodating large numbers of guests on formal occasions.

The new service accommodation on the ground floor was planned on an equally lavish scale ([19]). The new range was designed to provide more extensive kitchens and ancillary rooms. A kitchen occupied the south-west corner, with a scullery and roasting kitchens between it and the chapel, flanked by larders. Rooms for the cooks and their apprentices, and for the comptroller and clerk of the kitchen spread to the east, behind the rusticated facade. Behind these was the kitchen court, opening into

an open quadrangle between Nash's south wing and the new street. A new servants' hall and linen rooms occupied the remainder of the space.

In his external elevations Pennethorne abandoned Blore's rather fussy Italianate manner and returned to the purer French-inspired style of John Nash (Plate 135). The ground floor is faced with his characteristic bands of rusticated stone, relieved only by severely plain round-arched windows and two massive entrance doorways of Florentine derivation (Plate 143a). In the elevations of the upper floors Pennethorne's main aim was not to overwhelm the existing building, and in this he was so successful that today it is difficult to tell where Nash's work ends and his own begins (Plate 134b). So as not to dwarf the main palace, the roofline was deliberately left plain - a mere line of urns over a virtually non-existent cornice. Otherwise, ornament is limited to pairs of Corinthian columns on the south front, an enriched frieze continued round from the main building, and Flaxmanesque relief panels ([20]).

In accordance with Prince Albert's wishes, Thomas Cubitt was kept on as builder. Since the Palace was not a normal public building, he was not required to tender competitively, and he promised to limit any profit he might make to 7 per cent ([21]). His tender of £47,000 for the carcase of the building was accepted on 16 June 1852, but a few days later Pennethorne sent in three more drawings showing alterations which Cubitt calculated

would push up the cost by £800 ([22]). Pennethorne had not yet provided any working drawings, and Cubitt was allowed to use his own discretion on those parts of the building whch would be invisible from the outside ([23]). Building began immediately, and the work progressed so quickly that by late November it was ready for the introduction of hot water pipes ([24]). By the beginning of 1853 Cubitt's men were working on the interior, and he was "urging the people on with the work, being anxious to get the scaffold [of the Ballroom] down before the Queen returns" ([25]).

Attention now shifted to the interior. The Prince Consort asked Pennethorne to prepare a scheme for the furnishings and fittings in June 1852, and in September he submitted plans and cross-sections of the ballroom and supper room ([26]). A month later he presented 22 more plans and drawings, which received the Prince Consort's approval ([27]). These drawings are of superb quality, some of them tinted, others minutely detailed in black ink (Plates 136, 138, 140-1). The estimated cost was £15,000, nearly half of which was to be accounted for by the massive ballroom. Before work could start, the designs were subjected to various alterations imposed by the Palace officials and by the Prince himself. In December 1852 the Lord Chamberlain suggestion the addition of an ante-room - later known as the Cross Gallery - at the southern end of the Picture Gallery which ran along the spine of Nash's main block,

and working drawings for this and the other rooms were finally submitted in June 1853 ([28]).

Funding now became a serious problem. Manners's successor, Sir William Molesworth, told the Treasury in January 1853 that there was no money available for decorating the new wing, the proceeds of the sale of the Brighton Pavilion having been largely exhausted on its construction. To make matters worse, the cost of materials and labour was rising, and extra money was needed for the gilding, decorative painting and bas-reliefs now demanded by Prince Albert ([29]).

These were was not the only extra expenses. The palace officials had already attached various costly items to Cubitt's original contract for the carcase, including extensive alterations at the west end of the ballroom, new lighting and heating, and iron railings, walls and gates flanking the new street ([30]). Pennethorne had suggested yet more refinements himself, like the addition of stone balls to "relieve the baldness" of the roofline. The total cost was now estimated at £55,770, over £8000 more than was originally intended ([31]). Pennethorne therefore reported that an extra £31,308 was required to complete the work both inside and outside the building ([32]). The Treasury agreed in July to include a sum of £40,000 in the estimates for the ensuing year, including £8000 for ornamental painting, and work outside the palace, and in September Cubitt's tender for completing the interiors

was accepted ([33]).

The interiors received their final form as a result of changes made while work was in progress in 1854 and 1855. Prince Albert played a large part in these final stages, but it was Pennethorne who was responsible for incorporating the profuse decorative motifs into a convincing architectural whole. Pennethorne's first drawings of October 1852 showed a different decorative treatment from that eventually adopted ([34]). Some changes were shown in the working drawings of June 1853, by which time Albert had presumably brought his influence to bear ([35]). More alterations now occurred. In March 1854 Albert approved revised plans for the Ballroom, including a less expensive version of the organ which was to go at the east end. The doorways were enlarged and redesigned at Albert's suggestion in mid 1854, and matched on the opposite side of the room by similar structures containing huge mirrors, 15 ft high by 10 ft. wide ([36]). The bas reliefs over the doorways were by the sculptor William Theed, an artist much favoured in royal and Government circles, who had trained in Rome under Gibson and Thorwaldsen ([37]). Pennethorne submitted a revised design for the Supper Room ceiling in May, and in August he sent in an estimate of £3600 for painting, gilding and marbling the Ballroom ([38]).

The painting of the upper parts of the Ballroom, and the colouring of the galleries and Supper Room, was entrusted to the Prince Consort's artistic

advisor Ludwig Grüner. Born in Dresden and trained in Rome, Grüner shared Albert's enthusiasm for Raphael and had been responsible for the redecoration of Nash's main staircase in 1845 ([39]). Pennethorne met him in August 1854, and gave him "elaborately finished outlines of the sides of the several rooms" to colour ([40]). Early in September Grüner was preparing elaborate designs which departed considerably from Pennethorne's original intentions, and he later visited Rome twice to authenticate the details. Work finally began in October, and was finished the following year ([41]). Molesworth insisted that Pennethorne was "on no account to sanction or commence any work at Buckingham Palace without the previous consent of the First Commissioner and the Treasury", but the architect could not argue with the Prince Consort, and he looked on powerlessly as the costs rose ([42]).

The lighting and furnishing of the new rooms took up much of 1855. Pennethorne first wanted to light the Ball Room by chandeliers hung from brackets projecting from the walls, but this plan was abandoned in favour of one under which gas burners would be hung from the ceilings, and large free-standing chandeliers placed at floor level. Gas ceiling lights had been used in the "Great Music Hall" (presumably the Town Hall) at Birmingham, but the method employed by the contractors, Messrs. Osler, was "... altogether so new, so experimental, and so subject to alterations and

improvements as they proceeded that the cost could not have previously been estimated" ([43]). The lighting was ready, and the organ being installed in September 1855.

By the end of 1855 the funds were once again exhausted. Pennethorne admitted that not enough money had been set aside in the original estimate, either for the interior carvings which were "different from those of almost every other Building upon which Builders are employed", or for "the innumerable mouldings and small surfaces which, by multiplication of parts, have caused every small item to swell into an important sum". Other changes, probably originating with Prince Albert, had pushed up the cost further; they included making the seats in the ballroom moveable so that it could be turned into a banqueting room, and raising the roofs ([44]). By now Sir William Molesworth had been replaced as Chief Commissioner by Sir Benjamin Hall, and he was predictably unimpressed with Pennethorne's explanation, claiming that, with the exception of the gas lighting, none of the alterations had been sanctioned by him or by Molesworth ([45]). The rooms were used for the first time on 8 May 1856, the final cost having come to £77,655 ([46]).

In their completed form the new rooms were among the most splendid of all Victorian interiors, and helped establish and influential taste for rich and boldly coloured decoration inspired in part by the early Italian cinquecento. This mode of design had become popular in Germany, the home of the Nazarenes, and had

been employed by Klenze at the Hermitage in Leningrad, as well as by Prince Albert and Ludwig Grüner in the now-demolished garden pavilion at Buckingham Palace in 1844-6. It had so far made relatively little impact on England, and Albert, who saw the new rooms at Buckingham Palace, as his "Creation and Child", seized the opportunity of employing the new taste on the most sumptuous scale ([47]).

The ballroom was, and is, the largest room in the palace, 110 ft. long, 60 ft. wide and 45 ft. high - a ratio of approximately 8:4:3 (Plate 137a). These generous proportions were demanded partly by Pennethorne's concern to follow the classical proprieties, partly by the need to accommodate very large numbers of crinolined guests dancing the waltz, then at the height of its popularity ([48]). The room eventually came to be used for evening concerts and state banquets, ultimately enabling the Queen finally to abandon St. James's Palace for most State functions as she and Peel had originally intended ([49]). It was later said to be "admirable for music", resonant but free from echo ([50]). Like the Banqueting House in Whitehall, it is an uninterrupted space, with a two-storied elevation, and a compartmented ceiling; the roof, though, is held up by cast-iron trusses ([51]). The east end is occupied by the organ, originally decorated in the early Renaissance manner, and the west by a throne inside an arched aedicule supported on Corinthian columns - a feature of

late Roman inspiration ([52]). On the long sides of the room are the doorways and matching mirrors, under flattened semicircular arches, surmounted by Theed's bas-reliefs ([53]).

Much of the spectacular effect of the Ballroom in its original state derived from its lighting and colouring. The walls were hung with red silk decorated in a criss-cross fashion, and the seating was also covered with red cloth, its colour shown up by light from the free-standing ormulu candelabra ([54]). At night the windows themselves were lit up from outside by gas-burners, and further illumination came from the gas-burners in each of the ceiling compartments, which also served to ventilate the room ([55]).

The frieze and ceiling compartments were made up of Grüner's intricate arabesques, "grotesques" and mythical beasts of early-16th-century and ultimately late-Roman inspiration. They recall the paintings in the loggia of the Villa Madama at Rome, originally conceived by Raphael. The spaces between the windows were occupied by paintings of loosely-draped female figures representing the 12 Hours, painted from "sketches by Raphael" by the Roman artist Nicola Consoni, who had worked on the new San Paulo fuori le Mura, and was brought in by Grüner ([56]). Lady Eastlake, wife of the President of the Royal Academy, recorded that "One gentleman of high standing ... lamented to my husband that better artists had not been employed to design the

twenty-four Hours - female figures on a dark-blue ground, which go around the walls about two-thirds the height up. Sir Charles heard him out, and then said: Very true, it is a great pity; the designs are only Raphael's" ([57]).

The supper room was equally impressive (Plate 139). It was used for informal late-evening meals served on the occasion of balls, and as an assembly room when Courts were held ([58]). Sumptuous decoration was highly appropriate for such purposes. Almost square in plan, and 45 ft. high, the most notable feature of the room was a shallow dome which, with its delicate, almost Adamesque painting over a blue background with gold stars and painted birds, brought to mind an oriental tent - an early example of the revival of a mode of design, which, like the Raphaelesque manner, had a considerable following in mid-Victorian England ([59]). The Arabian Nights effect was reinforced by the marbled walls, whose pinks, mauves and greens contrasted with the bold reds and blues of the ballroom. Further brilliance came from plate-glass mirrors let up through the floor in front of the windows at night.

The supper room was reached through the top-lit Promenade Gallery, which had marbled walls with grisaille panels of cupids by Consoni on the upper levels, and paintings of vases and flowers by Moxon lower down (Plate 142). It was lit from above by a segmental-arched roof. The shorter Approach Gallery (Plate 140) had a semicircular coffered ceiling, with glazed panels at the

top, and walls painted in imitation of tapestry ([60]). Over the doors at each end there were boldly modelled relief carvings by Theed "representing the birth of Venus and Venus descending with the armour of Achilles, in life size" ([61]).

Pennethorne's rooms had an unfortunate history. Several ornaments fell from the ballroom ceiling in the autumn of 1856, and in 1869 he was called in to investigate complaints about the ventilation - a perennial problem with gas-lit rooms ([62]). The promised removal of the state ceremonies from St. James's had still not taken place in 1863, and in 1864 a writer in the Builder complained that the palace was overlooked by the new Palace Hotel in Buckingham Palace Road, and hardly ever used ([63]). When the Queen did finally start holding formal ceremonies in the palace, the accommodation in the ballroom was found to be inadequate, and Pennethorne's successor at the Office of Works, Sir John Taylor, was called in to carry out minor alterations in 1872, before adding a glass-roofed conservatory onto the south side in 1878 ([64]). This alteration ruined the plain, clean lines of Pennethorne's south elevation, but far worse followed in 1902 when, as part of a general revulsion against mid-Victorian taste in interior design, Edward VII ordered the whitewashing and gilding of the ballroom and supper room, to the designs of Frank Verity and C.H. Bassat (Plate 137b). Today the original decorative scheme can only be seen in parts of the

galleries ([65]).

Pennethorne's connection with Buckingham Palace did not end with the completion of the new rooms. With the completion of the "Pimlico Improvement" and the building of Buckingham Palace Road, he was asked in 1858 to design a new wall stretching from the palace to the Royal Mews, and to reface and embellish the outside of Sir William Chambers's riding house of 1766 with an enriched cornice and a bas-relief in the pediment ([66]). He transmitted working drawings for the urn-topped wall and associated works in October, together with a design by Theed for a bas-relief of Hercules taming the horses of Diomedes for the pediment of the refaced Riding House ([67]). The work was carried out in 1860 (Plate 143b).

Pennethorne's last involvement at Buckingham Palace took the form of a remodelling of the chapel and chapel approaches. Blore's chapel of 1843 was neither an aesthetic triumph nor a practical success, proving, as might be expected of a former conservatory, too hot in the summer and too cold in the winter ([68]). It was approached along a narrow corridor from Nash's Dining Room with two right-angled bends, and in February 1860 Pennethorne reported that the approaches were too narrow for ordinary purposes, and totally useless for State occasions. The windows were too large, the roof too thin, and the seating arrangements inconvenient. A thorough remodelling was needed, and not a "trifling or temporary relief". He therefore sent in plans for

alterations to the approaches, so that the chapel could be conveniently entered from both floors of the building, with a new staircase leading to the royal gallery alongside the new Approach Gallery. The work was completed early in 1861 at a cost of some £2400 ([69]).

Pennethorne now prepared plans for alterations to the chapel itself. The Office of Works, anxious not to ask the Treasury for money which would have to be voted by Parliament, balked at the expense, estimated at £8140. In February 1860, therefore, he sent in a modified proposal costing only £3500 ([70]). The only major alterations were the addition of a pedimented clerestory or lantern, supported on iron trusses, and a rusticated screen wall with an arched niche joining the west wall to the new south wing ([71]). Work was finished by the end of the year, when a request from Prince Albert for elongating the new clerestory and improving ventilation was approved ([72]).

More ambitious schemes for improvements inside the chapel were prepared by the Prince, but were discarded after his death ([73]). Surplus money left over from the funds earmarked for the existing alterations was spent, however, in 1862 on repainting it according to a scheme prepared by Muller, another member of the Prince's artistic entourage who also worked at Marlborough House and on the royal Mausoleum at Frogmore ([74]). Pennethorne supervised this work, and prepared a design for a new pulpit, explaining that it was to be marbled "... because

the Prince Consort always spoke of Marble, and so far as I could gather, had an idea of having it made of real Marble - of course at a larger cost". A model of an alabaster pulpit was ready by 15 December 1862, and with its manufacture in the following year, Pennethorne's creative involvement with the Palace came to an end ([75]). The chapel was bombed in the Second World War, and the present Queen's Gallery built within the walls.

MARLBOROUGH HOUSE

Marlborough House was built in 1709-11 to the designs of Sir Christopher Wren as the London home of the first Duke and Duchess of Marlborough. It was altered internally by Sir William Chambers in the 1770s ([76]). A plain, foursquare red-brick building standing to the east of St. James's Palace (Plate 144), the house survived proposals by Nash to extend Carlton House Terrace westwards, and it eventually became the home of William IV's widow, Queen Adelaide. She died in 1849, and a year later it was set aside as the future official residence of the Prince of Wales (later Edward VII) ([77]). He was to occupy the house after reaching the age of 18 in 1859. Meanwhile it was used for various official purposes: a temporary home for surplus pictures from the overcrowded National Gallery, a museum for objects belonging to Henry Cole's Department of Practical Art, and, for a

short period, offices for London University ([78]).

Pennethorne's involvement with the house began in July 1850, when he was asked to provide a design for a new stable block on ground to the east, adjoining Carlton Gardens, and behind the Ordnance Office. Queen Adelaide had kept her horses in the old Carlton House stables at the eastern end of Carlton House Terrace. Russell's government wanted to demolish the stables and the adjoining riding house so as to complete the terrace (a project not carried out until 1862). As architect and surveyor to the Crown Estate Pennethorne was an obvious choice as designer of what was never intended to be more than a modest, functional building which he estimated would cost £15,000 if the materials from the Carlton House stables were used ([79]). Despite claims from the Radical, Joseph Hume, that "... there must be something behind the scenes - some job or other", the Commons voted £5000 towards the building from the Land Revenues of the Crown, and early in 1851 Pennethorne prepared a series of drawings ([80]).

Nothing was done until the house was taken over on behalf of the Prince of Wales at the beginning of 1859. The Treasury now asked for new plans and estimates of the stables, and also for an estimate of the cost of fitting up the house itself ([81]). In November Pennethorne sent in a revised scheme for stables costing £6000, and was also asked to prepare a scheme for reinstating the house, using a sum of £10,000 voted by

Parliament in the previous session ([82]).

After nine years in which the public had tramped through its rooms, Marlborough House was certainly in need of refurbishment. One writer thought that it was "... fitted neither for the display of princely state, nor domestic comfort ... it is in every respect, both internally and externally, of the most prosaic and humdrum quality" ([83]). The mid-Victorians preferred elaborate Italianate mouldings to plain red brickwork, and richly embellished wall surfaces to the elegant chastity of Chambers's work in the interior. Given sufficient money, Pennethorne or some other architect would no doubt have been asked to build a new house, rivalling the magnificent new Dorchester House in Park Lane. No government, however, was prepared to face the wrath of the backbenchers by burdening the public funds with a brand new house for a youth of 18. The Prince Consort, therefore, decided to draw upon the Prince of Wales's own funds in order at least to bring the old-fashioned house up to date for the large-scale entertaining in which the Prince might be expected to indulge - and in which he did not disappoint expectations.

This object could not be achieved without a thorough internal remodelling, and some structural alteration. Pennethorne had already worked closely with the Prince on the new south wing of Buckingham Palace. He now submitted two alternative schemes to Albert on 20

December 1859. The first and more expensive, costing some £46,000, would have moved the entrance to the west wing, and provided a new ballroom beside the old northern entrance which faced the backs of the houses in Pall Mall. The house would be approached from a new gateway and lodge next to the Queen's Chapel ([84]). The proposed new lodge and entrance gate would have supplanted the old entrance to the house, and would have brought Marlborough House into a better relationship with St. James's Palace. The second scheme, which Pennethorne claimed was "not beyond such as is usually introduced into a first-class Residence for a Nobleman" ([85]), kept the entrance on the north side, but added a new entrance hall and placed the new ballroom at the west end. It was estimated at £38,000. With certain revisions, including the omission of the ballroom, this scheme provided the basis of the alterations as they were eventually carried out. Work was conducted under the direction of the Prince's officials, with the Office of Works doing no more than paying the £10,000 Parliamentary grant ([86]). The alterations began in the spring of 1860, and the house was handed over to the Prince of Wales at the end of 1862 ([87]).

Wren's house was a "double pile" main block with slightly projecting wings. Pennethorne transformed the main block internally, and substantially altered the wings. One of his aims was the creation of a more stately entrance. Visitors now entered the house, as

they do today, through a spacious carriage porch carried on Tuscan columns, with bulbous urns on the balustrade (Plate 145a); the order was chosen to conform with that of the colonnade (now demolished) which linked the main house with the lower service blocks on either side of the entrance courtyard. The porch leads into a new entrance hall flanked by rooms for the ladies and gentlemen in waiting, and a flight of steps leads from the hall into a transverse corridor lit by glazed saucer domes, and articulated with enriched pilasters. It runs along the front of the old house and links the two service wings with each other. A doorway leads from the corridor into Wren's two-storied entrance hall (henceforth known as the saloon), which was left virtually untouched apart from the removal of a colonnade at the southern end and its replacement by a balcony at first-floor level supported on brackets. The staircase on either side of the hall also remained largely unaltered ([88]).

Pennethorne's most spectacular contribution to the house was the creation of a new and lavishly decorated suite of reception rooms on the garden front. Much of the ground floor in Wren's house was taken up with relatively small rooms grouped together as "apartments". These rooms could not be easily adapted to the mid-Victorian style of entertaining, which demanded at the very least a sizeable dining room, drawing room and library. A central drawing room was therefore formed out of three smaller rooms on the garden front, with iron

girders supporting the upstairs rooms (Plate 145b). Painted Corinthian columns mark the divisions between the former rooms, and there was originally a highly enriched ceiling divided into panels surrounded by plaster mouldings. The doorway, and the mirrors set in intricately carved frames, were a development of the refined yet sumptuous manner of Buckingham Palace, and no doubt represented the taste of Prince Albert as well as that of Pennethorne (Plate 146). A new dining room was created in the east wing by extending Chambers's drawing room to take in a small adjoining room, and a similar transformation took place in the west wing, where a new library (the present Green Drawing Room) was created by running together the old breakfast room with the rooms on the garden side. The former dining room on the north of this wing was divided up by inserting a new back staircase. Beyond it lay the Prince's morning room.

Work on the interior continued until 1862, when Prince Albert's painter, Muller, was still carrying out decorative work ([89]). The house was now capable of providing a suitably lavish backdrop to the activities of the Prince of Wales, and the "Marlborough House set". When the work was near completion, the interiors were said to present "an appearance of much elegance and comfort". The decorations were thought worthy of "useful study ... [and] although various kinds of ornamentation have been used, these are made subservient to the general good effect" ([90]). Today, alas, the effect can only be

recaptured through photographs, the splendid decorative scheme having been obscured by misguided 20th-century decisions to subject the house to a regime of bland neo-Georgian "good taste". As a result the reception rooms, used now for Commonwealth conferences, are drained of character and vitality.

With work on the house in progress, it was necessary to hasten the long-awaited construction of the stables. Work had been delayed by the reluctance of successive governments to surrender the space in the old Carlton House stables and riding house. Eventually, though, in the summer of 1861, the Treasury allowed the demolition of the riding house to go ahead ([91]). Pennethorne was now instructed to work out detailed plans in consultation with Lt. Col. Mander, the Queen's Master of the Horse, and in December 1861 he produced four new plans "in strict accordance with [Mander's] views and requirements". The colonel had more lavish tastes than either Prince Albert or William Cowper, the Chief Commissioner of Works, had envisaged, and the estimated cost now soared to £14,900 ([92]). As with the house, the extra money came out of the Prince of Wales's own revenue, and work had begun by October 1862 ([93]).

In 1851 Pennethorne had proposed to build the stables in the form of a main block facing towards the Mall, with two wings projecting north. The horses were to be accommodated on two floors with an inclined plane leading to the upper floor, an arrangement used by Nash

in the old Carlton House stables. This scheme provided the basis for the stables as built, but there were some important modifications. The central block now contained the main coach-houses and was flanked by stables on either side, with harness rooms and offices in the wings. Most of the horses were accommodated on the first floor, and the stable-hands lived above them on the second floor.

From the north or entrance side the building has the down-to-earth functional quality of many similar Victorian buildings, with its stock brick walls, glazed roof and frank exposure of iron columns (Plate 148a). The red brick hipped-roofed garden front, by contrast, alludes to the late-17th-century style of the house (Plate 147). Pennethorne was something of an architectural chameleon and, just as he had imitated Chambers at Somerset House and Nash at Buckingham Palace, he now showed himself capable of composing a facade in the manner of Wren and his contemporaries. He used some of the details of the main house like the "aprons" under the first-floor windows, but in its overall effect the building is a creative reinterpretation rather than a copy. In this respect, it is a little-known precursor of the "Queen Anne" revival, which was to have so considerable an effect on the architecture of late-19th-century England.

The growth of the Prince of Wales's household soon forced further changes to Marlborough House.

Pennethorne's successor, Sir John Taylor, prepared plans for an enlargement in 1870, and further alterations followed in 1880 ([94]). The most important changes were the addition of extra stories to the main block and wings, and the enlargement of the servants' quarters. It cannot be pretended that the changes improved the external appearance of the house (Plate 148b) , and with Pennethorne's interiors now largely lost, it is difficult today to recapture its mid-Victorian character.

THE ALBERT MEMORIAL

Pennethorne was brought into frequent contact with the Prince Consort during the 1850s. The two men worked together on the design of the ballroom wing of Buckingham Palace and other royal buildings, as well as on schemes for the layout of South Kensington, and for the Staff College at Camberley. It was natural therefore that Pennethorne should be among the seven architects asked to work out the form of a memorial at Kensington after the Prince's untimely death in 1861 ([95]).

Pennethorne had proposed schemes in 1853 for placing a new National Gallery either on the memorial site, or on the opposide side of the road ([96]). These proposals had come to nothing, and for a long time the large tract of land purchased by the Great Exhibition

Commissioners between Kensington Gore and Cromwell Road remained undeveloped. Eventually the Commissioners, despairing of successive Government failures to evolve a coherent policy developing the site, leased the greater part for gardens to the Royal Horticultural Society. The northern fringe, however, including the present Albert Hall site, remained in their own hands, and Henry Cole proposed building a "Hall of Arts and Sciences" there ([97]). The Prince's death enabled these proposals to be revived, and in May 1862 his former secretary, General Charles Grey, wrote to the Chief Commissioner of Works, William Cowper, suggesting that part of this land should be designated for "some work of usefulness - such as he would himself have taken a deep interest in". Grey believed that Gladstone, now Chancellor of the Exchequor in Palmerston's government, still wanted to move the National Gallery to South Kensington, and he thought that the construction of a museum of sculpture combined with a monument would help realise this aim ([98]).

At first Pennethorne wanted to place the Memorial on the Albert Hall site. In a sketch sent to Sir Charles Eastlake in May 1862, he envisaged putting it at the centre of a square opening onto the lower-lying Horticultural Gardens to the south ([99]). In July 1862 the seven architects, having failed to work out a suitable collective scheme for the Memorial, were invited to provide their own designs. Pennethorne submitted his design in December. The Memorial was now to go on its

present site, flanked by formal gardens, with a "Hall for a central institution for the promotion of scientific and artistic education" on the Gore House (or Albert Hall) site opposite ([100]). Although no elevation of the hall survives, the plan makes it clear that it was to be a rectangular Grecian building aligned north and south, with a portico facing the Memorial across a straightened Kensington Gore. Four rectangular buildings of uncertain purpose (presumably museums or educational institutions) were to go further south, looking over the Horticultural Gardens. In this way Pennethorne obviously hoped to salvage something from the abandonment of his earlier plans for laying out the Commissioners' site with public buildings.

Pennethorne's Memorial (Plate 149) was to take the form of a massive raised mausoleum 65 ft. square with a marble-clad inner chamber containing a statue of the Prince, lit by windows in an attic surmounted by a stepped pyramid ([101]). Like several other schemes of the last decade of his life, the design has a distinctively Grecian character ([102]). There are no curved lines, and no unstructural use of the orders. The building is entered on each side between massive square piers with Corinthian capitals, but in the attic storey columns are replaced by caryatids. The pyramid which crowns the building is taken directly from the Mausoleum of Halicarnassus, a feature also used by T. L. Donaldson in his much blander Roman design ([103]). This motif had been

used 150 years before by Hawksmoor in his steeple of St. George's Bloomsbury, and in its uncompromising severity Pennethorne's design recalls that architect's work. Unlike the Grecian architects of the early 19th century - but like the Greeks themselves - Pennethorne was a lover of rich surface decoration, and the building is liberally supplied with statuary and relief carving. Pairs of statues representing the Arts and Sciences flank the flights of steps leading up to each facade, and at each corner there are carved scenes depicting the main events in Albert's life ([104]).

Pennethorne's scheme demonstrates his continuing sympathy with neo-Classicism at a time when many of the most gifted English architects had succumbed to the more seductive charms of the Gothic Revival. Pennethorne's severe later style was not, however, in accordance with mid-Victorian public taste, nor was it liked by the Queen who objected to the gloomy associations of a mausoleum. Albert had preferred the Rundbogenstil, or the style of Quattrocento and early Cinquecento Italy to the heavier manner of Schinkel and his followers, and the Mausoleum in which he was laid to rest at Frogmore was designed in the Italian Romanesque style. It is not surprising therefore that Pennethorne's design was rejected in February 1863 in favour of Gilbert Scott's equally striking Gothic tabernacle.

1. Summerson, Nash, pp.165-6.

2. Kings Works, vi, 322; Cres 2/1201. The supervision of the building was later taken over by W. S. Inman: T1/6041A/20465.

3. Cres 2/1219, /1229; T1/6693A/3774; Works 2/21, p.255.

4. For the early history of the Palace, see Summerson, Nash, pp.165-182; Kings Works vi., pp.263-286.

5. ibid. p.289; W. Ames, Prince Albert and Victorian Taste, p.34.

6. The Letters of Queen Victoria 1837-1861, ed. A. C. Benson and Viscount Esher, ii. (1908) pp.33-4.

7. C. S. Parker, Sir Robert Peel iii. (1899), p.182, 1 July 1845.

8. Works 34/888. Pennethorne also made proposals for a new wing on the south side of Friary Court for the Duke of Cambridge in 1859. An unpretentious two storied range was built on this site, but since no detailed drawings or accounts survive, it is impossible to say for certain whether it is by Pennethorne. See Works 1/63, p.332; Works 34/887, 13 Oct. 1859.

9. Kings Works, vii. p.291; H. Hobhouse, Prince Albert, p.134; H. Hobhouse, Thomas Cubitt, p.396.

10. Works 19/9, f.3371; Kings Works, vi, p.292.

11. BL, Add MS 42047, pp.20-31.

12. Hobhouse, Cubitt, p.415-6; Hobhouse, Albert, p.131.

13. Works 19/9, ff.3065-6. The plans have been lost.

14. ibid. f.3124; Works 30/12 ; Works 34/11.

15. Works 19/9, f.3093; Works 1/31, p.213; Hobhouse, Cubitt, p.419. Sir William Molesworth later said that Pennethorne's position at the Palace had never been clearly defined: Works 19/9, ff.3342-8.

16. Royal Library, RL22076; Works 34/360, /363-4, /371.

17. Hobhouse, Cubitt, p.419.

18. Works 34/1, /371.

19. Works 34/363.

20. J. Harris, G. de Bellaigue and O. Miller, Buckingham Palace (1968), p.36. A design for one of the panels is in the Royal Library, Windsor, RL23235.

21. Works 19/9, f.3508, 3 June 1852. In the event he only 1.5 per cent profit.

22. Works 1/45, pp.709-10; Works 19/9, ff.3254-8. The drawings have disappeared.

23. Works 19/9, ff.3255, 3262.

24. ibid. f.3297; Works 1/45, pp.709-10.

25. Works 19/9, f.3325.

26. ibid. ff.3257, 3536; Works 34/372-4, 14 Sept. 1852.

27. Royal Library, RL 22077-22092, 18 October, 1852; "The Ball Room and Supper Room at Buckingham Palace", RIBA Journal 24 Nov. 1934, pp.104-9.

28. Works 1/40, p.584; Works 19/9, f.3319; Works 34/376-459, 20 Jan. 1853.

29. Works 19/9, ff 3342-8, 3388; Hobhouse, Cubitt, p.422.

30. Royal Archives, Vic. Add MSS /PP 62, 16 June 1852. I am indebted to the Librarian at Windsor Castle for supplying

me with photocopies of documents from the Royal Archives.

31. Works 1/40, p.441, /41, p.423; Works 19/9, ff 3379, 3491.

32. Works 19/9, f.3493.

33. T26/1,p.96; Works 1/42, p.125. The contract excluded chimneypieces and five "emblematic groups".

34. Royal Library, RL 22077, 22080.

35. Works 34/378.

36. Royal Archives, Vic.Add /PP 62, 1 March 1854, and 9 May 1854.

37. Works 1/43, p.165; Works 19/9, f.3482.

38. Works 34/450; Royal Archives, Vic.Add./PP 62, 29 Aug.

39. D. Miller, "Headquarters of Taste", Country Life, 4 Dec. 1986, pp.1764-6; Hobhouse, Albert, p.132; Ames, Prince Albert and Victorian Taste, p.272.

40. Royal Archives, Vic.Add /PP 62, 26 Aug. 1854; Works 19/9, ff 3497-9.

41. Works 1/44, p.606; Works 19/9, ff.3503-5; Royal Archives, Vic.Add /PP 62, 16 Dec.1854. The painter was Charles Moxon, who had been involved in the decoration of the palace since 1846.

42. ibid. f.3498v.

43. Works 19/9, f.3605.

44. Works 1/45, p.371, 9 March 1855; Works 19/9, ff.3516, 3606-8; Royal Archives, Vic. Add /PP 62, 8 Jan, 23 March, 25 Aug, 19 Nov. 1855.

45. Works 1/49, pp.8-9.

46. Queen Victoria, Letters iii, p.190; RIBA Trans. 1856-7, p.190.

47. Miller, loc. cit. p.1766, quoting Princess Mary Adelaide.

48. The origial effect can be seen in a painting by Louis Haghe of the Ballroom in 1856, reproduced in Miller, loc.cit., p.1764.

49. H. Clifford-Smith, Buckingham Palace (1931), pp.56, 174.

50. Builder, 29 Dec. 1860, p.835, article on acoustics by T. Roger Smith.

51. Works 34/391.

52. Works 19/9, ff.3325, etc.

53. BN 30 Oct. 1857, p.1150; Builder 31 May 1856, p.298.

54. Ames, Prince Albert and Victorian Taste, p.78.

55. Hitchcock, Early Victorian Architecture, p.266; Works 34/406.

56. Clifford Smith, p.179 (n). He later carried out paintings in Prince Albert's mausoleum at Frogmore.

57. C. Eastlake Smith (ed.), Journals and Correspondance of Lady Eastlake iii (1895), p.85., Jnls. p.85.

58. ILN, 18 July 1857, p.51; Clifford-Smith, p.177.

59. Hitchcock, p.266.

60. Works 1/72, p.382; Royal Archives PP/5880, June 1863. Fears about fire led to the construction of a new iron roof to Pennethorne's design in 1863.

61. Builder 31 May 1856, p.298.

62. Works 19/9, f.3669; Works 19/10/1, ff.3-5.

63. BN 12 June 1863, p.441; Builder 25 June 1864, p.478.

64. Works 19/10/1, f.46; Works 34/460-4.

65. Harris, etc.., Buckingham Palace, p.75; Miller, loc.cit. p.1763.

66. Works 1/59, p.69; Works 19/10/2, f.8, 10 June 1859; Kings Works vi. pp.303-7; Harris, etc., p.79.

67. Works 1/65, p.192.

68. Works 19/294, f.2.

69. Works 1/64, pp.204, 308; /66, p.229; Works 19/294, ff.7-8, 21; Works 34/487-497, undated.

70. Broadlands Papers, WFC /P/27, Jan 1861.

71. Works 1/67, p.390; Works 19/294, ff.21-6; Works 34/471-480; Builder 16 March 1861, p.184.

72. Works 1/69, pp.36-7; /70, p.26; Works 19/294, ff.30, 43.

73. Works 2/28, p.80. Pennethorne received £31. 10s. for the now lost drawings in 1864.

74. Royal Archives, PP 1339, 1358, 1515, 1520; Works 1/72, p.45.

75. Royal Archives, PP 1380, 1411 (19 June 1862), 1526; Builder 18 June, 1864, p.453. The pulpit was made by Burke and Co. of Regent Street.

76. J. Charlton, Marlborough House, (1978), p.9; Works 34/746.

77. Works 2/8, pp.220-1; T25/20, p.82; Charlton pp.13-14.

78. T26/1, p.13, 1 June 1852; J. Physick, The Victoria and Albert Museum, pp.16-17.

79. Works 19/18/1, ff.73, 99-103.

80. Hansard cxiii., 26 July 1850, 454-9, 577-8, 831; Works 19/18/1, ff.100-108.

81. T26/2, p.342; Works 1/61, p.239.

82. Works 19/18/1, ff.172, 181-2; T26/2, p.449; Works 1/64, p.32.

83. BN 21 Oct. 1859, p.994; Builder 7 March 1863, p.169.

84. Works 19/18/1, ff.179, 185-7. He had built a modest brick lodge as part of his street improvement scheme in 1856: Works 1/48, p.53; Works 34/825, /830.

85. Works 19/18/1, f.185; Charlton, p.19.

86. Works 19/18/1, ff.186-7, 191, 193; T26/2, p.529; Works 1/65, pp.66-7.

87. Works 1/66, p.150; Works 19/18/1, f.240.

88. Works 34/749-752, /777, /799-801. A new skylight was placed over the main staircase.

89. Royal Archives, Vic.Add. /PP 1490.

90. Builder 7 March 1863, p.169.

91. T26/3, p.151. The records were transferred to the new East range of the PRO.

92. Works 19/18/1, ff.213-4; Works 34/836.

93. Works 1/70, p.389, Works 19/18/1, f.227; Works 34/840-858.

94. Works 19/18/1, ff.241 et seq; Works 34/749-752; Charlton, pp.20,31.

95. Survey of London xxxviii. p.150; S. Bayley, The Albert Memorial, (1981), pp.30 et seq. The other architects were P. C. Hardwick, T. L. Donaldson, M. D. Wyatt, E. M. Barry, Charles Barry junior, and Gilbert Scott.

96. Rep.Sel.Cttee. on National Gallery, PP 1852-3 [867] xxxv, pp.723-6.

97. Physick & Darby, Marble Halls, p.196.

98. Broadlands Papers, WFC/G/43, 5 May 1862.

99. Bayley, p.36, quoting Royal Archives Add H7/48. I have been unable to see the archives relating to the Memorial myself.

100. Bayley, p.36, quoting RA Add 1/17A; Works 35/68.

101. Bayley, p.36. Pennethorne said that he thought a mausoleum would be more appropriate than a temple, cross, obelisk or column.

102. An elaborate perspective design was sold at Christies in January 1983, cat.no.134.

103. It is illustrated in Getting London in Perspective (Barbican Art Gallery Exhibition catalogue 1984), p.74.

104. Bayley, p.36.

CHAPTER 10 (Footnotes on p.500)

PENNETHORNE'S ARCHITECTURAL ACHIEVEMENT

Pennethorne's career was dominated by two main themes: the replanning of London, and the provision of public buildings to satisfy the growing needs and responsibilities of the Victorian State. In tackling these two great tasks he had to make use of the skills of the surveyor, the town planner, the civil servant and the architect. In devising solutions to the complex and varied problems with which he was presented, he made an important contribution both to the evolution of Victorian London, and to the development of 19th-century architecture.

His career was a lonely and in many ways a frustrating one. Political and financial restraints repeatedly conspired to prevent his creative talent finding full expression. Many 19th-century architects succeeded because they could cater to the demands of a society which wanted visible marks of wealth and prestige. Others did so by finding niches within the still wealthy and very adaptable landed gentry and aristocracy. Others built churches. Architects like Barry and Waterhouse designed government buildings while retaining successful private practices. By giving up his private practice at the age of 40, Pennethorne cut himself off from these sources of patronage, and shackled

his imagination to the exigencies of government.

Mid-Victorian governments were generally unwilling to spend large sums of money on public buildings or on works of urban improvement. Their reluctance stemmed from their belief in "local self-government" and restraint in public spending. In both of these aims they had the backing of public opinion. Governments were expected to restrain their impulse to spend the taxpayers' money so as to allow free rein to economic individualism. Collective achievements, in architecture as in everything else, were expected to be subsidised locally, as Palmerston told M.P.s in 1863: "If anyone will go to Liverpool, to Leeds, to Manchester, and to other great towns, he will see buildings of the most beautiful description erected, not under the control of Government, but by persons employed by the municipalities themselves" ([1]). Against such a background the task of a government architect was bound to be difficult.

Pennethorne also suffered because he could not rely on protection in high places. This was in part a consequence of Britain's move towards representative government, embodied in the 1832 Reform Act. In part too it was a result of Pennethorne's reserved character. He seems to have lacked the charm which enabled some architects to sway the mighty, or to turn the minds of committees. Sir Christopher Wren had been able to count on the support of the Stuart monarchs against scheming politicians and obscurantist churchmen. John Nash would

never have been able to carry out his plans for transforming the West End without the backing of George IV. When Karl Friedrich Schinkel died, the Prussian royal family even walked behind his coffin ([2]). It was the lack of this kind of powerful support at the centre which, more than anything elese, thwarted Pennethorne's official career.

Pennethorne's career covered a period of transition in Government patronage of architecture. In some respects - including the method of his appointment - he was a product of the old informal patronage system, inheriting many of Nash's official duties just as he inherited the remnants of his architectural practice. Robert Kerr saw him as "the last of our Government architects", falling victim in the end to a decision by the Gladstone administration to dispense with "proper architectural advice" ([3]). He was a well-known figure, respected by a large part of the architectural profession, and the recipient of the RIBA Gold Medal in 1865. But he was also the prototype of the faceless architectural civil servant of the 20th century, devoting himself full-time to government work, and retiring on a substantial pension. Trained to be an independant government architect of the old Surveyor of Works kind, and enjoying a high status and official protection, he was none the less forced by political developments over which he had no control into the role of the pliant architectural bureaucrat, writing innumerable letters and

immersing himself in the minutiae of administrative detail. In this respect his career marks an interesting stage in the evolution of the architectural profession.

There is no established consensus about Pennethorne's place in English architectural history. Less well-known than the great pioneers of Victorian Gothic, or even than his classically-minded contemporaries, Barry and Cockerell, his achievement has been consistently underrated. He published no books, had no famous pupils, and generally shunned the limelight. Through no fault of his own, his Metropolitan Improvement schemes on which he spent so much time do not form a coherent picture. His buildings make few concessions to those who judge the merit of architecture by its novelty, or its decorative charm. His most perceptive critics have been those who have shared his classical training and study. Albert Richardson thought that he was one of the most scholarly architects of the 19th century and credited him with keeping the flickering torch of the monumental classic tradition alive after the death of his near-contemporary, C.R.Cockerell, in 1863 ([4]). Goodhart-Rendel, perhaps the most perceptive of all commentators on English 19th-century architecture, rated him higher and judged his Italianate manner to be superior to Charles Barry's ([5]). Hitchcock documented his early buildings with characteristic throughness, but refrained from making any assessment of his architectural achievement ([6]). Pevsner virtually ignored him. More

recently the revival of interest in European classicism and its English offshoots - especially the work of Cockerell - has led to a certain rehabilitation. To Middleton and Watkin he was "the only London architect capable of developing Cockerell's intellectual classicism" ([7]). But he can hardly be said to have entered the architectural pantheon.

Much of Pennethorne's achievement lies in the realm of city planning, where he formed a crucial - and largely unrecognised - link between the era of Nash and that of the Metropolitan Board of Works. Had his plans for new streets been carried out as he intended, he would have made as great and important impact on the capital city as Nash. Even in their reduced form, his achievements were formidable: the layout of major streets in the centre of London, and the design of two major parks. Aesthetically, these projects represent an adaptation of the style of Nash to the needs of Victorian London. Considered from a more functional standpoint, they represent an important stage in the establishment of the "infrastructure" without which modern cities cannot function. Pennethorne was by temperament a practical man, like his contemporaries Paxton and Chadwick. In his Metropolitan Improvement activities, he made a significant contribution to the modernisation of London.

Pennethorne's plans, unlike Nash's, had something of the rationalistic character associated with the French Beaux Arts and the American "City Beautiful" movements.

This aspect of his vision is best seen in his unexecuted plans for the layout of the South Kensington estate. They follow the Beaux Arts pattern of an underlying "modular grid" with formal gardens and monumental buildings covering the whole site ([8]). But even in his more pragmatic street improvement schemes he was aware of the powerful effect of generously laid-out thoroughfares lined with monumental buildings. The Public Record Office would have benefitted greatly from the construction of the east-west street Pennethorne planned to go alongside its northern flank. If more of his improvement schemes had been executed, his reputation as an architect would have stood higher.

In his role as an urban planner, Pennethorne kept the Nash tradition alive. But in his mature architecture he moved decisively away from the manner of the older master. Some of his buildings have Gothic and Elizabethan facades, but he was a classicist at heart. Like Cockerell, who saw himself as a member of the same school ([9]), he learned the main principles of architectural composition abroad. His foreign tour was not a mere sketching holiday, but the most important part of his architectural education ([10]). In Rome he received a similar education to his French and German contemporaries like Hittorff, Labrouste and Semper who later went on to occupy comparable official positions in their respective countries, and to adorn their own capital cities with monumental buildings. It is

fruitless to speculate, in the absence of diaries, about his knowledge of contemporary European architecture, but it is clear from a study of his work that his buildings can best be understood in a European context.

Pennethorne's mature architecture, like that of his major European contemporaries, was grounded in a belief that the academic classical tradition, as developed in 18th-century France, could be adapted, through an open-minded attitude to sources and a readiness to use new materials, to the complex needs of the 19th century. This belief transcended individual and national differences. It was not enough for an architect to impose his personality on a building. Architecture should speak for itself, in its own language, without recourse to the seductive but essentially extrinsic appeals of the Sublime or the Picturesque. To architects like Pennethorne, the chief medium for communication and expression was the language of the orders. Classicism was not merely a collection of attractive decorative devices, but a coherent set of symbols and conventions, appealing both to tradition and, through the doctrine of "apparent utility", to reason. As understood by the rationalists of the 18th and 19th centuries, classical architecture was in essence ornamented structural form, and in his buildings Pennethorne echoed Schinkel's belief that utility should be the "underlying principle" of architectural design ([11]). The architect, having contrived a convenient plan, showed his skill through his

mastery of structure and his application of ornament according to what the French called convenance and bienséance; that is, appropriateness and decorum ([12]).

One of the obituary notices written after Pennethorne's death pointed out that his career summarised the development of classical architecture in the 19th century ([13]). His earliest buildings, dating from the 1830s, are recognisable products of the Nash office, and in his parks and ornamental buildings he remained true to the Nash inheritance. But where he had the opportunity he soon showed an early interest in developing the language of classicism, and adapting it for modern use. His two churches, though rather gaunt, showed his powers of abstract classical composition for the first time, while his design for the Royal Exchange demonstrated his interest - shared by Cockerell and Elmes - in infusing something of the richness of Roman detailing into the austerity of neo-classical design.

He did not have an opportunity of further developing what Goodhart-Rendel called his "peculiar powers of organised design" ([14]) until the late 1840s. These powers were most clearly seen in the Geological Museum, whose Italianate facades were designed with unusual refinement. The same style was employed in the early 1850s in the Ordnance Office extension, the Stationary Office and the Duchy of Cornwall office. The Public Record Office and Somerset House, meanwhile, demonstrated his talent for designing complex structures in which many

of the important decisions were made - or had already been made - by others. Yet both bear the stamp of his own architectural personality.

Pennethorne's architectural style reached its final development in a number of important designs of the 1850s and 60s, starting with his unexecuted designs for the Government offices in Whitehall and culminating in the London University senate house in Burlington Gardens. His late style is characterised by greater expressiveness and monumentality of scale and an increasing richness of external decoration. Italianate delicacy is replaced by a sense of power which recalls the effect of some of the great 19th-century buildings of France and Germany. The facades are usually treated as trabeated grids over a rusticated base, with pronounced rusticated quoins. Pennethorne's use of bands of rustication comes from France, but the grid-like treatment of the facades is reminiscent of Schinkel and his followers. An order is sometimes added, as in the unexecuted designs for a Piccadilly front to Burlington House. Elsewhere, as in the earlier design for a War Office in Pall Mall, a sculptural effect of light and shade is evoked by profuse carving. In most of the later designs, turrets and sculptural motifs appear on the roofline, giving the building an even more distinctive character. It is tantalising to speculate about how our understanding of 19th-century British architecture would differ, had these unexecuted designs been carried out.

There are only two major surviving buildings in Pennethorne's late manner: the Staff College at Camberley, and the London University senate house. In the Staff College the need for cheapness ensured that excessive sculptural enrichment did not detract from the structural logic of the facade. Pennethorne's last building, the London University senate house, makes use of the same stylistic repertory, but the facade is treated more elaborately, and its character is greatly influenced by the fact that Pennethorne had to redesign it in the Renaissance manner after his earlier Gothic design was begun and then vetoed by Parliament. The present facade is plastic and polychromatic, and there is abundant sculpture to proclaim the building's function, almost anticipating the Edwardian Baroque. Yet compared with the decorative profusion and ponderous formlessness of some of the buildings of the 1860s, the senate house stands out as a model of restraint.

The rationalistic classical character of Pennethorne's architecture can be most clearly seen in the plans of his buildings. In all of his major buildings, he had to provide, within a relatively small budget, large numbers of well-lit and well proportioned rooms, together with convenient means of access. His plans are easily intelligible, like those of Barry and Waterhouse. Those for free-standing sites generally follow a rectilinear grid-like arrangement, with one or two clearly marked axes for the main lines of

communication. This can be seen at its simplest in the first block of the Public Record Office, and in a more developed form in the Staff College and the London University senate house. The plans for confined sites are inevitably more complex. The Geological Museum demonstrated Pennethorne's skill at contriving a convenient plan - in this case involving a large top-lit museum gallery - on a cramped site, always one of the most difficult tests of an architect's abilities.

Pennethorne's buildings are also interesting from a constructional point of view. Like most of his classically-minded contemporaries, he made extensive use of structural ironwork, fireproof brick-arch construction, and concrete foundations. These new methods were already well-established in the 1840s, but Pennethorne used them to striking effect in the Public Record Office and the Geological Museum. Contemporaries often talked about letting a building's function determine its form, but there are few major 19th-century public buildings where this is more the case than the massive repository of public documents in Chancery Lane. In his facade Pennethorne made no attempt to hide the logic of the internal layout, with its massive fireproof floors and walls, and in the round reading-room he produced a top-lit iron structure reminiscent of, though less adventurous than, the Coal Exchange and the British Museum Reading Room. In the earlier gallery at the Geological Museum he covered a wide space with an elegant

glazed iron roof which though subsequently overtaken by others in grandeur of conception, was one of the first in the country applied to a major public building. Iron roofs were also provided in the approach galleries at Buckingham Palace, in the National Gallery, the Patent Office library, and in the London University building. These structures deserve to be better known.

Pennethorne was able to display considerable spatial ingenuity in the Geological Museum because of the several differences of level. In general, though, his buildings are not notable for bold or impressive spatial effects; within a straitened budget, "wasted" space is a ready target for the accountant's blue pencil, as too many 20th century buildings show. The Public Record Office in particular suffers from a utilitarian horror of internal public space, but Buckingham Palace, the Staff College and the London University senate house all contain well-proportioned rooms, with spacious means of access. The staircase in the university building and the layout of the Ballroom, Supper Room and approach galleries at Buckingham Palace, deserve comparison with the better-known club buildings and aristocratic town houses of the period. In each case the careful layout provides an appropriate framework for the opulence of the rooms themselves.

Pennethorne is little known as a designer of interiors, but his major decorative schemes at Buckingham Palace, Marlborough House and the London University

senate house deserve a place in the history of mid-Victorian taste. In each he synthesised Grecian, Roman and Renaissance motifs into a satisfying whole. Because of the attention lavished on Pugin and his followers down to the Arts and Crafts movement, the best Victorian classical decoration has tended to be overlooked by historians. Pennethorne's interiors show the influence of Nash, but they have a greater purity of detail and architectural coherence which recalls the work of Cockerell and Alfred Stevens. His decorative schemes were successful because of his careful choice of colour, and the subordination of the rich ornamentation to a controlling architectural logic. Colour was a subject of absorbing interest to the mid Victorians, classicists as well as Goths. There was increasing knowledge of the use of colour in classical antiquity, and a growing interest in early Renaissance art in which Prince Albert himself took a leading part. The Buckingham Palace interiors - which owed much to Albert and his advisor Ludwig Grüner - avoided both the somewhat tawdry, flashy glitter of the neo-Rococo of the 1830s and 40s, and the solid portliness of the West End Clubs. They were widely publicised, and their influence can be seen both in Pennethorne's own work at Marlborough House and elsewhere, and in the work of other architects.

Pennethorne's architectural style virtually died with him. In the very year of his death Norman Shaw exhibited his perspective drawing of Leyswood (Sussex) at

the Royal Academy, harbinger of the wave of picturesque eclecticism which swept the country in the last three decades of the 19th century. Less than ten years separate T.G.Jackson's Examination Schools in Oxford from Pennethorne's London University building, but a comparison between the two shows what was lost when disciplined and coherent planning and facade-design was abandoned in favour of the facile charm which characterises so much late-19th-century public architecture in England.

More highly admired by the profession than any other architect, according to one of his obituaries ([15]), Pennethorne left no real successors. In the Office of Works Sir John Taylor was responsible for some highly creditable buildings which nevertheless failed, as did those of his successor Henry Tanner, to display very much of Pennethorne's creative mastery of classical design. Only in the Post Offices erected by James Williams under the aegis of the Office was there any real sense of a continuing tradition ([16]). Isolated buildings in the provinces kept up the stricter classical tradition: Gibson's banks, the Harris art gallery at Preston of 1883, Portsmouth town hall of 1886. It was only in Scotland, where the career of "Greek" Thompson parallels Pennethorne's, that the tradition maintained its earlier vitality, and it is no accident that Scots were among the leaders of the movement to implant the "Beaux Arts" manner of training and design in England in the early

years of the 20th century. The products of this school - Burnet's north facade to the British Museum (begun 1904), the Royal Automobile Club by Mewes and Davis (begun 1908), and some of the buildings of Reginald Blomfield and Sir Albert Richardson - clearly form part of the tradition to which Pennethorne belonged.

A final estimate of Pennethorne's contribution to English architecture must depend upon our assessment of 19th-century classicism. If it was an outmoded irrelevance, then he was no more than a marginal figure. If, on the other hand, classicism was as valid a mode of design in England as it was on the Continent, then Pennethorne occupied a central position. Involved in almost all of the main Government projects of the mid 19th century, deeply imbued with the principles of academic classicism as understood throughout Europe, a master of urban design, he designed some buildings of lucidity and power, and would have built more had it not been for the capriciousness of his employers. It cannot, alas, be said of Pennethorne, as it was of Wren: "Si monumentum requiris, circumspice". But a proper understanding of his buildings in their context should at least restore him to the place he deserves as one of England's leading 19th-century architects.

1. Hansard, clxxi, 1 June 1863, 207.

2. Middleton and Watkin, Neoclassical and 19th-century Architecture, p.270.

3. RIBA Trans. 1871-2, p.63.

4. Monumental Classic Architecture, pp.9, 98-9.

5. RIBA Jnl. 3rd series xl., p.365; English Architecture since the Regency, (1953), p.189.

6. Early Victorian Architecture, pp.264-304.

7. op.cit. p.257.

8. A. Drexler, (ed.), The Architecture of the Ecole de Beaux Arts (1977), pp.124-9.

9. RIBA Trans 1856-7, p.6.

10. Richardson, p.76.

11. Pevsner, Studies in Art, Architecture and Design, i (1968), p.191.

12. P. Collins, Changing Ideals in Modern Architecture (1965), pp.99,. 126, 198-203. See also Drexler, op.cit. pp.118, 159; R.Middleton (ed.), The Beaux Arts and 19th-century French Architecture (1984 edn.), p.119.

13. Mechanics Mag., (1871), p.272.

14. op.cit. p.118.

15. Mechanics Mag., (1871), p.286.

16. See Richardson, pp.9, 108.

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(a) manuscript

In the Public Record Office.

Outside the Public Record Office.

(b) Printed

Official Publications.

Books and Pamphlets.

(c) Maps, Plans and Drawings

MS, In the Public Record Office.

MS, Outside the Public Record Office.

Printed.

Secondary Sources

(a) Books.

(b) Articles.

(c) Unpublished theses, etc.

PRIMARY SOURCES

(a) Manuscript

1) The Public Record Office,

(Chancery Lane and Kew)

(i) Crown Estate Records (Cres):

Cres 2/ (Letters and reports)

62	Windsor
82	" (Keppel Estate)
533-5	Carlton House Terrace
647	St. James's Street bazaar
667	Metropolitan Improvements
669-671	Cranbourne Street
672	New Oxford Street
673	Metropolitan improvements, schedules of property
674	New Oxford Street
778	Park Villages
815	St. James's Park
850	Strand
909	Westminster Mews (Stationery Office site)
1201	Claremont
1219	Egham farm buildings
1229	"

1616 Nash's resignation of his practice to Pennethorne, 1834

1727 Carlton House Terrace

1735 Pimlico

Cres 6/155 Letters to Treasury 1832-4

Cres 19/9-56 Office of Woods and Forests, House Department, letter books 1828-1870

Cres 26/34 New Street Commissioners, Minute Books 1831-4

Cres 35/ (Crown Estate registered files)

1963-1984 Carlton House Terrace

2004 Opera House, Charles Street

2093 Geological Museum, Piccadilly

2116-2125 Kensington Palace Gardens

2127-2133 Palace Green

2148 Langham Bazaar, Regent Street

2202-2231 Pall Mall, including clubs

2240 Hamilton Place, Park Lane

2252-4 St. James's Hall, Regent Street

2453-4 St. James's Street

2492 Crown property on Victoria Embankment

2566 Crown property on eastern side of Whitehall

(ii) Miscellaneous collections (PRO):

PRO 8/4 Public Record Office, Chancery Lane

/5 Geological Museum

PRO 30/22 Papers of Lord John Russell

(iii) Treasury (T):

T1/ (miscellaneous papers)

3512	Carlton House Terrace
3990	Metropolitan Improvements
5193/20425	Ordnance Office, Pall Mall
5201/22315	Victoria Park
5282/19832	National Gallery
5295/23860	Geological Museum
5398/21532	Battersea Park
5556A/8614	Geological Museum
5663B/15010	National Gallery
5706B/25092	Somerset House
5761A/25846	Liverpool Post Office
5806A/14661	Victoria Park building estate
5816A/18965	Windsor, Keppel estate
5997A/10002	War Office, Pall Mall
6041A/20465	Office of Works organisation
6062A/7385	National Gallery
6094B/18482	War Office, Pall Mall
6095A/18632	National Gallery
6109A/20419	Foreign Office
6223A/19527	Burlington House site
6251A/9793	" " "

6321B/16295	Admiralty
6380A/15699	"
6583C/17698	University of London senate house
6611A/1902	University of London senate house
6649B/17865	Burlington House site
6693A/3774	Papers concerning Pennethorne's position in the Office of Works, including a Treasury report of 10 June 1859, and his accounts of his designs for government offices in Whitehall.
6695A/4999	Foreign Office
6739A/18528	Public Record Office, East wing completion
6936A/20938	Pennethorne's employment in the Office of Woods and Forests

T25/18-27 Letters to the Office of Woods and Forests, 1839-1870

T26/1-5 Letters to the Office of Works, 1851-1870

(iv) Office of Works (Works):

Works 1/25-90 General Letter Books, 1841-1870

Works 2/3-33 Letters to Treasury 1841-1870

Works 3/6		Geological Museum, 1844-6
Works 6/	(Metropolitan Improvements)	
	92-8	Letter Books 1839-1851
	99-101	Report Books 1839-1851
	102-3	In-letters to the Royal Commission for Metropolitan Improvements 1842-6
	138-9	Chelsea Bridge & Embankment
	142-6	Commercial Street
	147/1	Proposed street on north side of Public Record Office
	147/3	Garrick Street
	147/4	Proposed street in Southwark
	148/1-7	Endell Street
	148/8-12	New Oxford Street
	149/1	Enquiry into management of improvements 1856-7, (printed in Parliamentary Papers) 1857 (2) xli.[130]
	149/2	List of improvements carried out by Commissioners of Woods, Forests to 1857
	149/3	Disposal of land, 1857-1870
	155-6	Pimlico Improvement scheme
	162/12	Westminster Bridge approaches
	180	Parks
	186/6	Staff College, Camberley

Works 12/ (Government Offices, etc.)

1	New Law Courts
31/2	Site of new Law Courts
51/7	Probate Registry
64-5	Public Record Office
67/1	" " "
84/1	Foreign Office
99/6	Somerset House
101/1	Duchy of Cornwall office
102/1	Stationery Office

Works 16/ (Parks)

22/6	Battersea Park building land
28/11	Kensington Park
34/4	Proposed "Albert Park" in north London
180	Primrose Hill
298	St. James's Park
437	Stanhope Gate lodge

Works 17/ (Museums and Galleries)

7/1	Geological Museum
10/2	National Gallery
13/7-15	" "

Works 19/ (Royal Palaces)

9-10/2	Buckingham Palace
11/5	Carlton House terrace and stables
12/1	Claremont
18/1	Marlborough House

	30/2	Windsor Improvement scheme
	30/4	" " "
Works 22/	(Internal organisation)	
	2/10	Establishment in 1851
	2/18	Reorganisation in 1869 (printed in Parliamentary Papers 1868-9, xxiv [336]
	8/1	Pennethorne's retirement

2) Outside the Public Record Office

(i) In public collections

Bodleian Library, Oxford

MS B/XX/M (Box 106) Disraeli papers

British Library

Add MSS	
38996-7	Layard papers
40481	Peel papers
43200	Aberdeen papers
44381, 44384, 44571,	Gladstone papers
44636, 44742, 44796	" "

Broadlands MSS (deposited at the Royal Commission on Historical Manuscripts, Quality Court, Chancery Lane, London WC2)

GC/HA Letters from Sir Benjamin Hall to Lord Lord Palmerston

WFC/A-C Papers of William Francis Cowper

Geological Museum, Exhibition Road, London SW7

GSM 1/6 In-and-out-letters 1850-1855

1/13 Correspondence to the Director General, 1847-1854

1/529 Letters from Pennethorne 1870

Greater London Record Office

Battersea Park Papers, vols. 1-4

Kennington Park Papers, vol.1

Victoria Park Papers, vols. 1-5

Guildhall Library

MS 4952 Royal Exchange competition

House of Lords Record Office

Willis MSS 2/151, /168, Letters from Pennethorne on his visit to Ireland in 1843

Kent County Record Office, Maidstone

MS U 543/E7 Papers relating to the rebuilding of St. Julians for J.C.Herries

/E20 Papers on the building of 7 Carlton Gardens for J.C.Herries

The National Gallery

File of cuttings, etc. on the history of the building

Minute Books of the Board of Trustees, vols. 1-4, (1828-1871)

Northumberland Record Office, Newcastle

MS ZR1 33/3 Papers relating to alterations to 10, Carlton House Terrace for Sir Matthew Ridley, 1831-2

Royal Institute of British Architects, Portland Place WC1

MS NAS/1 John Nash's account book

MS PeJ/1/1 Report on proposed enlargement of National Gallery, 1850

Somerset House Probate Registry

Vol.13 (1871), 621, no.14, Sir James Pennethorne's will

University of London (Senate House)

University archives, RC 28/8-9. Letters about the building of the new Senate House, 1867

Windsor Castle, Royal Archives

RA Vic.Add/PP62 Papers on the building of the south range at Buckingham Palace

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Worcester County Record Office

X850 Worcester St. Nicholas BA 3790/1b, Record of James Pennethorne's baptism, 1801

Worcester Probate Records Box 710, Will of Thomas Pennethorne, 1843

3) In Private hands

Mrs. Liddon Few

Geneqlogical notes on the Pennethorne family

Peter Laing, esq.

Diaries of John Nash for 1832 and 1834

James Pennethorne's notebooks on Roman architecture

Miscellaneous family papers

Sir John Summerson

MS notes on James Pennethorne's diary for 1832, and other papers, formerly in the possession of James Pennethorne of Richmond. (The present whereabouts of the originals is unknown.)

Typed copies of letters from John Pennethorne to James Pennethorne, Cairo 1833 (whereabouts of originals unknown).

(b) Printed

1) Official publications

(i) Hansard, Parliamentary Debates (1839-1870)

(ii) Parliamentary Papers (House of Commons):

1826 xiv. 5th Report of the Commissioners Woods, Forests, etc.
(and subsequent yearly reports)

1828 iv [446] Report of Select Committee on the Office of Works and Public Buildings

1829 iii [343] Rep.Sel.Cttee on Crown Leases

1831 iv [329] 2nd Rep.Sel.Cttee on Windsor Castle and Buckingham Palace

1831-2 v [614] 2nd Rep.Sel.Cttee. on Westminster Improvements

1833 xiv [677] Rep.Sel.Cttee. on Land Revenues of the Crown

1833 xv [448] Rep.Sel.Cttee. on Public Walks

1836 ix [568] Rep.Sel.Cttee. on the Arts and their Connexion with Manufactures

1836 ix [517] Rep.Sel.Cttee. on Metropolitan Improvements

1837 xxxiv (2) [60] Rep.Sel.Cttee. on Public Records

1837-8 xvi [418] 2nd Rep.Sel.Cttee on Metropolitan Improvements

1837-8 xxviii 4th Rep.of Poor Law Commissioners for England and Wales

839 xvii [572] 1st Rep.Commissioners for Inquiring into the State of Large Towns and Populous Districts

1839 xiii [136] 1st Rep. Sel.Cttee. on Metropolitan Improvements

1839 xx 5th Rep.Poor Law Commissioners

1840 xi [384] Rep. Sel.Cttee. on Health of Towns

1840 xii [410] 1st Rep.Sel.Cttee. on Metropolitan Improvements

1840 xxviii 1st Rep.of Deputy Keeper of Public Records

1841 (2) i. 2nd Rep. Deputy Keeper of Public Records

1844 xv [15] 1st Rep.of Commissioners... for Improving the Metropolis

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1846 xv [574] 3rd Rep.Sel.Cttee. on Westminster Bridge and New Palace

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1847-8 xviii [543] Rep.Sel.Cttee. on Miscellaneous Expenditure

1847-8 xxxii [895] 1st Rep.Metropolitan Sanitary Commrs.

1847-8 xxxix [440] Return of Cost of Metropolitan Improvements

1847-8 lx [519] Papers on the Rebuilding of Regent Street Quadrant

1849 ix [419] 2nd Rep.Sel.Cttee. on Army and Ordnance Expenditure

1849 xx [574] 2nd Rep.Sel.Cttee. on Woods, Forests and Land Revenues of the Crown

1850 xv [612] Rep.Sel.Cttee. on National Gallery

1850 xxxiii [266] Correspondance on Bridgewater House

1850 xxxiv [571] Civil Service Estimates

1851 xxii [642] Rep.Commrs. for Considering a Site for a New National Gallery

1851 xxix [1356] 7th Rep.Commrs...for Improving the Metropolis

1852 liii [522] Correspondance on Alterations in Office of Woods, etc.

1852-3 xxxv [867] Rep.Sel.Cttee. on National Gallery

1852-3 ci [179] Copy Letter on Battersea Park

1854 xxvii [1715] Rep.Cttee. on Inquiry into Public Offices

1854 lxvii [408] Papers Concerning a Projected Park in North London

1854-5 vii [382] Rep.Sel.Cttee. on Downing Street Offices Extension Bill

1854-5 x [415] Rep.Sel.Ctee. on Metropolitan Communications

1856 vii [85] Rep.Sel.Cttee. on St. James's Park

1856 xiv [368] Rep.Sel.Cttee. on Public Offices

1856 lii [193] Copies of Reports on Pimlico Improvement Scheme, the Spitalfields Extension, Chelsea Bridge and Battersea Park

1857 (2) ix [251] Rep.Sel.Cttee. on New Chelsea Bridge Bill

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1857 (2) xli [130] Copy of Report to Treasury of the First Commissioner of Works on the Present State of Metropolitan Improvements

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1857-8 xi [417] Rep.Sel.Cttee. on Foreign Office Reconstruction

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1859 iii [220] Sel.Cttee. on Court of Probate (Acquisition of Site) Bill

1860 ix [483] Rep.Sel.Cttee. on Miscellaneous Expenditure

1861 xxxi [2872] Rep.Sel.Cttee...on Embanking the River Thames

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1864 xii [504] Rep.Sel.Cttee. on Patent Office Library and Museum

1865 xii [124] Rep.Sel.Cttee. on Courts of Justice Construction (Site) Bill

1867-8 lviii [281] Copy Rep.of Commrs. on the Accommodation of Public Departments

1867-7 lviii [399] Copy of Rep. and Plan of Mr. Pennethorne... for Opening a New Street Between the Thames Embankment and the Horse Guards

1868-9 x [200] 1st Rep.Sel.Cttee. on Hungerford Bridge and Wellington Street Viaduct

1868-9 x [307] 2nd Rep." " "

1868-9 x [381] Rep.Sel.Cttee. on New Law Courts

1868-9 xxiv [336] Copy of Papers Relating to the Recent Changes in the Establishment of the Office of Works

(iii) House of Lords Sessional Papers

1861 v [201] Rep.Lords Sel.Cttee. on the Turner and Vernon Pictures

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W. H. Leeds, Illustrations of the Public Buildings of London (supplement) (1838).

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Account of Christ Church, Albany Street in Ecclesiologist iv (1845).

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"Report on the Foreign Office Competition", ibid. 24 July 1858.

The Times (1839-1871).

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(c) Maps, Plans and Drawings

1) The Public Record Office

LRRO 1/ (Crown Estate)

2029, 2036-7, 2041, 2046, Victoria Park

2059 Plan of proposed street from Long Acre to Cheapside, 1853

2068, 2083, 2111, 2115, 2128, 2142, 2199, Building land around Victoria Park

2440 Map of the Crown Estate in 1888

MPD 134 Ordnance Office, Pall Mall, 1846

177 Design for the Public Record Office 1850

MPE 592 Layout of Crown land at Windsor, 1844

613 Keppel estate at Windsor, 1852

758 Kensington Palace Gardens, 1841

811 Houses in New Oxford Street, 1846,

813 Plans for the Millbank estate

828 Houses in New Oxford Street, 1845

837 Victoria Park, plan of site

860 Plan of Carlton House Terrace and surroundings, 1828

874 Kensington Palace Gardens

891 John Nash's design for Carlton House Terrace, 1827

911 John Nash's design for the Park Villages, 1823

1608	Primrose Hill 1841
MPEE 42	Plans of the Millbank estate
50	New Oxford Street, plan of building lots and printed particulars, 1845
MPI 169	Designs for the Public Record Office, 1850-1868
172	" " " "
261	Plan of Commercial Street
299	Designs for the Public Record Office, 1847-1857
MR 55	Plans of Kensington Palace Gardens, Primrose Hill, and Victoria Park
88	Site of Battersea Park, 1848
442	Windsor Improvement scheme 1846
1082	Plans for New Oxford Street and Cranbourne Street, 1839-44
1087	Kensington Palace Gardens
1905	Park Villages
Works 30/197-224	Public Record Office working drawings, 1850
284-307	Somerset House, plans and working drawings, 1851-3
426	Plan for Commercial Street extension
431-3	Plans for New Oxford Street
436-7	Plans for Cranbourne Street
472	Plan for western side of Westminster Bridge, 1847

529-530	Plans for the Burlington House site, including new National Gallery, 1861
542	Burlington House, block plan 1866
826-8	Liverpool Post Office, alterations 1850-1
833-888	Duchy of Cornwall Office, plans and working drawings 1854-6
889-892	Plans for proposed new Foreign Office (unsigned), 1855 or 6
972-4	Decimus Burton's plans for a new Foreign Office
975-7	Site plans for new Foreign Office, 1855-7
1258-1268	Probate Office, site plans
2501-2512	War Office, site plans
2513-2523	Patent Office library, plans and working drawings, 1865
2585-2665	Public Record Office, East Wing and tower, plans and working drawings, 1863-8
2717-2737	Public Record Office, N.E.range 1865-9
2756-2793	Somerset House, working drawings, 1852-7

2830-2846	Proposed addition to Probate Office, Queen Victoria Street, working drawings, 1866
2871-2	Somerset House, proposed alterations, 1856-1862
2883-5	" " "
Works 32/1-2	Plans for proposed "Albert Park" in north London 1850-1
225	Plans for a road across St. James's Park, 1855
424	Plan of "Albert Park", 1851
660-675	Plans for Battersea Park
Works 33/1333-1385	Plans and working drawings of additions to National Gallery 1856-61
1744-1812	Plans and working drawings of London University senate House 1866-8
Works 34/1-4	Plans of Buckingham Palace
11-12	Pimlico Improvement scheme, 1851
251	Design for new approach to Windsor Castle, 1848
360-464	Plans and working drawings of south wing of Buckingham Palace, 1853-1872
470-499	Plans and working drawings of chapel alterations at Buckingham Palace,1861
530-548	Alterations to Buckingham Palace Riding House, etc. 1859-63

745-858	Alterations to Marlborough House, including approaches and new stables, plans and working drawings, 1856-1870
887-8	Plans for additions and alterations to St. James's Palace, c 1845 and 1859
Works 35/68	Plan of proposed Albert Memorial and surroundings, 1861
Works 38/77-80	Pimlico Improvement, 1855-9
92	Plan of proposed new street in Southwark, 1853

(2) Outside the Public Record Office

(i) Public Collections

British Library, Add MSS 18157-9, Designs for Northwood House, Isle of Wight

42047, Edward Blore's designs for south extension of Buckingham Palace

Dean and Chapter of Salisbury Cathedral, A plaster model of the cathedral by James Pennethorne, c.1825

Geological Museum, GSM 1/210, Pennethorne's designs for the museum

IGS 1/684, Designs by Alfred Stevens for decorating the hall and staircase

Greater London Record Office, Volumes of plans of Battersea Park, Kensington Park and Victoria Park
Prints and Drawings collection: various items,
Photographic collection

Liverpool Record Office, Plan of Prince's Park by Pennethorne and Paxton, 1842

National Monuments Record, Photographic collection

Royal Institute of British Architects, drawings collection:
W3/1/1-2 Designs for enlarging the National Gallery in 1850
W3/17-20 Designs by Arthur Cates for new buildings on the Crown Estate
X 16/2 Perspective drawing of proposed new government offices facing St. James's Park, 1855
X 20/19 Designs for block of shops at junction of Bloomsbury Street and Broad Street, St. Giles, 1845.
Uncatalogued Perspective drawing of proposed new facade to Burlington House in Piccadilly, c 1862.
Uncatalogued Photograph of Gothic design for the University of London senate house in Burlington Gardens.

Gothic Specimens II & III. Drawings by Pennethorne for Augustus Pugin's Specimens of Gothic Architecture, 1822

Measured drawing of St. Marylebone parish church for Britten and Pugin's Illustrations of the Public Buildings of London, 1823

The Staff College, Camberley

Plans and working drawings, 1859.

Photographs of the building in its original state.

Victoria and Albert Museum

Prints and drawings: 2815 A.L. Illustration of Pennethorne's temporary building.

8068 Alfred Stevens's design for the doors of the Geological Museum.

Guard Books: 2506-8, 2512-3, Photographs of Pennethorne's designs for the layout of the South Kensington estate.

Windsor Castle, Royal Library

RL 19909 Interior of Supper Room at Buckingham Palace in 1859, by Eugenio Agneni.

RL 19910 Interior of Ballroom at Buckingham Palace in 1856, by Louis Haghe.

RL 22076-22092 Designs for the south range of Buckingham Palace.

RL 23235 Design for a bas-relief at Buckingham Palace.

(ii) In Private Hands

Family of Mrs. Liddon Few

Proposal for a reconstruction of the Roman Forum, 1825.

View of the South Ambulatory of Westminster Abbey (n.d.).

Peter Laing esq.

Photographs of designs for Government offices in Whitehall, 1855.

Formerly in the possession of Peter Laing

The following drawings were sold at Christies on 14 June, 1983:

5 volumes of sketches by Thomas Pennethorne.

Design for a National Monument c.1824.

Design for ?Westminster College c.1832.

Watercolour drawing of the temple of Concord at Agrigento (possibly by John Pennethorne).

Design for Government offices facade to St. James's Park, 1854.

Design for new War Office in Pall Mall, 1855.

Design for the Albert Memorial 1862.

Design for a new gallery at the National Gallery c.1861.

A design for a new facade to Burlington House in Piccadilly is now in the RIBA drawings collection (see above).

The following drawings were sold at Sotheby's on 30 April 1987:

Large watercolour drawing of reconstructed Roman Forum (a larger version of the design in the possession of Mrs. Few's family).

Design for the Royal Exchange, 1839.

Design for a screen to Burlington House (1863).

Design for a road bridge over the lake in St. James's Park, 1855.

Unknown Provenance

A folio of drawings by James Pennethorne dated Paris 1825-6 was sold at Christies on 13 Dec. 1984.

(3) Printed

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Ordnance Survey Maps

1:2500 London sheets 61-3, 75 (various dates).

1:1056 London sheet 7 (various dates).

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Vol.24 Kings Cross Neighbourhood (1952)

Vol.27 Spitalfields and Mile End New Town (1957)

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APPENDIX

List of designs by James Pennethorne

(a) Buildings : executed

(b) Buildings : unexecuted

(c) Metropolitan improvement schemes and designs for the Crown Estate.

The list includes all buildings which James Pennethorne designed, or for which he is known to have provided an elevation and/or a ground plan, and all the urban improvement schemes for which he provided plans. It does not include block plans of sites of buildings he did not design.

All the buildings are in London, except where otherwise stated, and, except where otherwise stated, the patron is the the Office of Woods and Forests, or the Office of Works.

(a) Executed designs

(Dates refer to the beginning and ending of building and decorative work, where known, excluding fittings.)

1831 (attributed) Interiors at no.7 Carlton House Terrace, for John Hanning (since altered)

1831 Bathroom and other interiors at no.10 Carlton House Terrace, for Sir Matthew White Ridley (since altered).

1831 (attributed) Interiors at no.11 Carlton House Terrace, for Lord Monson.

1831-2 St. James's Street bazaar, for William Crockford (altered).

1832-4 (attributed) Houses in Park Village West.

c 1832 Houses in Newmarket (Suffolk) for James Crockford, the Marquess of Exeter, and the Earl of Chesterfield.

1834 Swithland Hall (Leics), for George John Danvers (altered).

1835 Unidentified house (possibly in the Isle of Wight) for Mr. Ward.

1836-7 Alterations to St. Julians, Sevenoaks (Kent), for J.C.Herries.

c 1837 Dillington House, Ilminster (Somerset), for John Lee Lee.

c 1837 Alterations to Lamorbey Park, Sidcup (Kent) for John Malcolm.

c 1837	Chapel at Halfway Street, Sidcup, for John Malcolm (demolished).
1836-7	Christ Church, Albany Street.
1837-8	Holy Trinity church, Grays Inn Road (demolished).
1842-4	(with Thomas Chawner), Claremont (Surrey), stable block, for Leopold, King of the Belgians.
1845	Block of shops and chambers at junction of Bloomsbury Street and Broad Street, St. Giles (demolished).
1845	Victoria Park, Lodge (demolished) and gates.
1846-9	Museum of Economic Geology, Piccadilly (demolished).
1847-8	Insolvent Debtors' Court, Lincolns Inn Fields, alterations (demolished).
1848	The Quadrant, Regent Street, remodelled street frontage (demolished).
1850-3	Ordnance Office, Pall Mall: New wing 1850-1 (demolished), Alterations to main block 1852-3 (demolished).
1851-3	Central Post Office, Liverpool, internal alterations (demolished).

1851-70	Public Record Office, Chancery Lane: Central block, 1851-3, East wing, south part 1864-6, Tower, 1865-7, East wing, north part 1869-70.
1852-62	Buckingham Palace: South range, including ballroom and supper room, 1852-6 (interiors altered), Wall to Buckingham Gate and alterations to Riding House, 1859-60, Alterations to chapel and approaches, including new pulpit (destroyed), 1860-2.
1852-7	Inland Revenue Offices, Somerset House.
1853-5	Stationery Office, Princes Street. (demolished)
1854-6	Duchy of Cornwall Office, Buckingham Gate (altered).
1856	Lodge to Marlborough House.
1856-60	Office of Woods and Forests (nos. 1-2 Whitehall Place), additions and alterations. (demolished)
1856	South Kensington Museum, temporary "junction building" (demolished).
1859-61	District Post Office, Buckingham Gate, Pimlico (demolished).
1859-62	Staff College, Camberley (Surrey).
1860-1, 1868-9	Principal Probate Office, Knightrider Street, new strong rooms (demolished).

1860-1	National Gallery, new picture gallery and sculpture gallery for Royal Academy (demolished).
1860-3	Marlborough House: carriage porch and internal remodelling for the Prince of Wales 1860-2 (since altered), Stables for the Prince of Wales 1862-3.
1861	Victoria Park, arcade (demolished).
1862-4	Completion of Carlton House Terrace, to designs of John Nash.
1865-7	Patent Office, Southampton Buildings, Chancery Lane, new library, (demolished).
1867	Stanhope Gate Lodge, Hyde Park, addition of extra storey (demolished).
1867-70	London University Senate House, Burlington Gardens (now the Museum of Mankind).

(b) Unexecuted designs

1824	Design for a national monument.
1831	Design for Westminster Hospital (lost).
1832	Design for Shire Hall and Assize Courts, Worcester (lost).
1832 (attributed)	Designs for Northwood House, Isle of Wight for George Ward.
1835	Design for the Houses of Parliament (lost).

1835-6	Designs for churches in New South Wales, Australia.
1839	Design for the Royal Exchange.
1844	Designs for additions and alterations to the National Gallery at Trafalgar Square (revised 1847, 1850, 1861, and 1864-5).
1845	Design for alterations to St. James Palace, including new private apartments and a National Gallery.
1849	Design for a bridge, Victoria Park.
1853-6	Designs for new government offices, including Foreign Office, Whitehall.
1853	Designs for National Gallery at South Kensington.
1855	Design for a bridge, St. James's Park.
1856	Design for new War Office, Pall Mall.
1858	Design for houses on Crown property in Buckingham Gate.
1861	Designs for new National Gallery at Burlington House.
1861	Designs for extension to the Admiralty, Whitehall, (lost).
1862	Design for the Albert Memorial.
c.1862-3	Designs for new frontage to Burlington House to Piccadilly.
1865	Designs for new Law Courts, Strand (lost).

1866 Design for extension to Principal Probate Office, Knightrider Street.

1868 Design for west (Chancery Lane) range, Public Record Office (built to modified plans by Sir John Taylor).

(c) Metropolitan Improvements, and plans for the Crown Estate

(dates refer to the original plans, not the execution of the works).

1828 Design for layout of ground adjoining Carlton House Terrace (unexecuted).

1838 Design for a new street from Piccadilly Circus to Cheapside (revised 1847: unexecuted).

1839-40 (with Thomas Chawner) Designs for New Oxford Street, Cranbourne Street, Endell Street and Commercial Street.

1840 Design for layout of Primrose Hill (unexecuted).

1841 (with Thomas Chawner) Designs for layout of Kensington Palace Garden).

1841 (with Thomas Chawner) Designs for Victoria Park (revised 1845 by Pennethorne alone).

1842 (with Joseph Paxton) Designs for Princes Park, Liverpool.

1842 (with Thomas Chawner) Design for layout of Crown property at Millbank.

1844 Design for new street on site of old stables, Windsor Castle.

1845 Design for Battersea Park (revised 1853-4)

1845 Design for Commercial Street northern extension.

1845 Design for Chelsea Bridge Road.

1845 Revised design for Victoria Street (carried out under supervision of Henry Ashton).

1846 Revised design for Garrick Street (carried out by the Metropolitan Board of Works).

1846 Design for layout of Crown property around Victoria Park.

1846 Design for a new street from Waterloo to Southwark (unexecuted).

1846 Windsor improvement scheme.

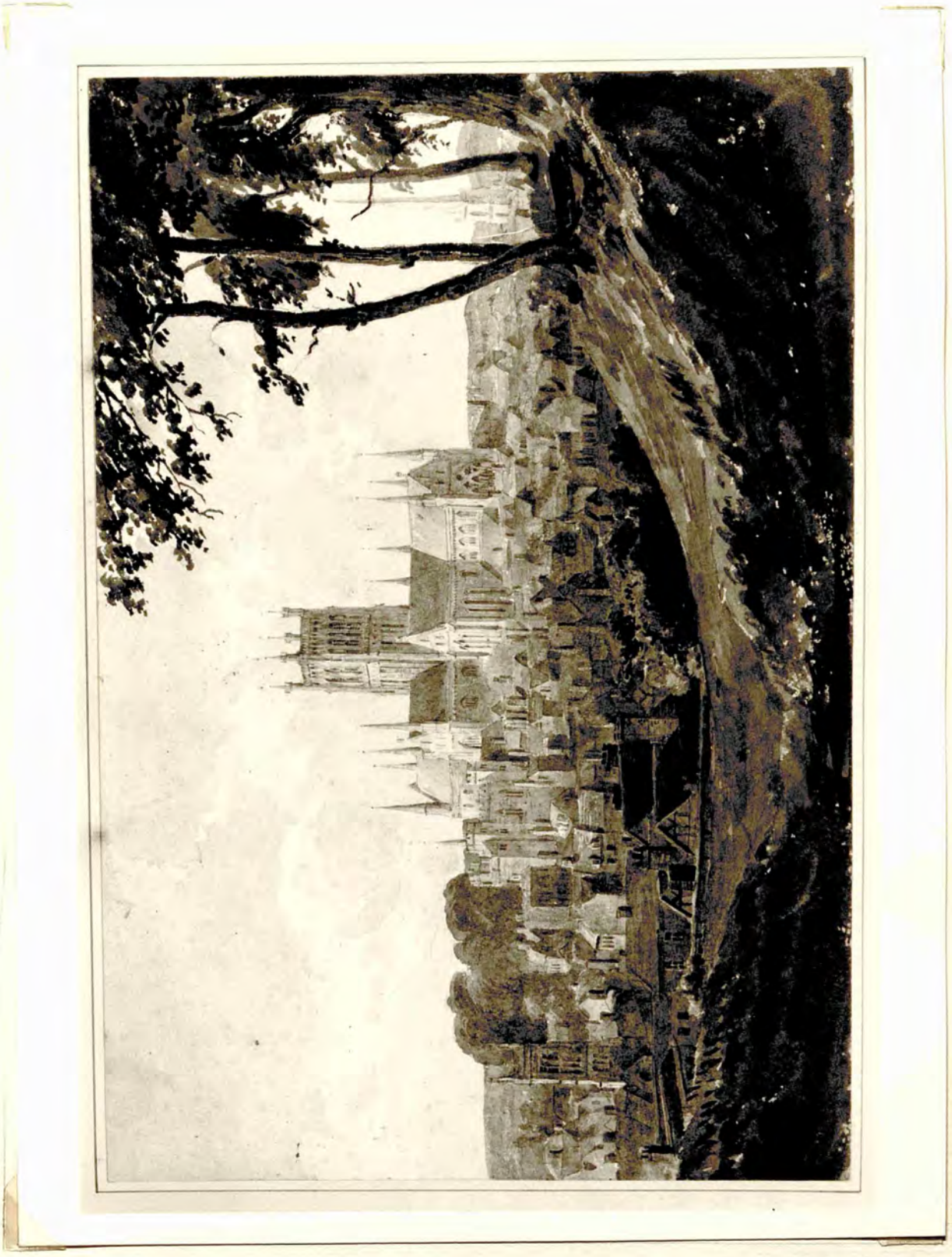
1847 Designs for approach roads to Victoria Park (unexecuted in the form intended).

1850 Design for layout of Crown property on east side of Whitehall (revised 1868: unexecuted).

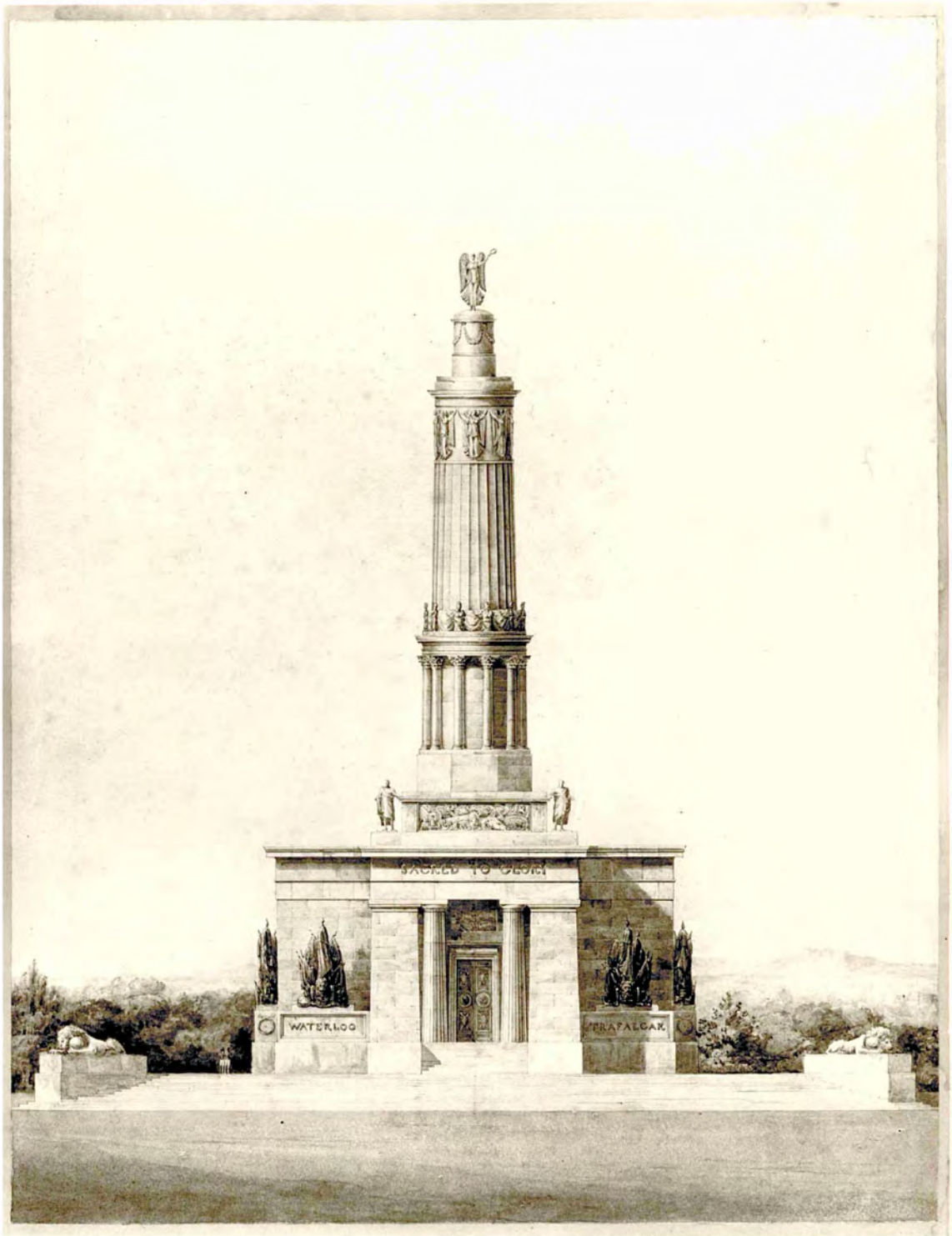
1851 Design for Pimlico Improvement scheme (now Buckingham Gate) (revised 1853).

c 1851 Revised design for "Albert Park" in north London (unexecuted).

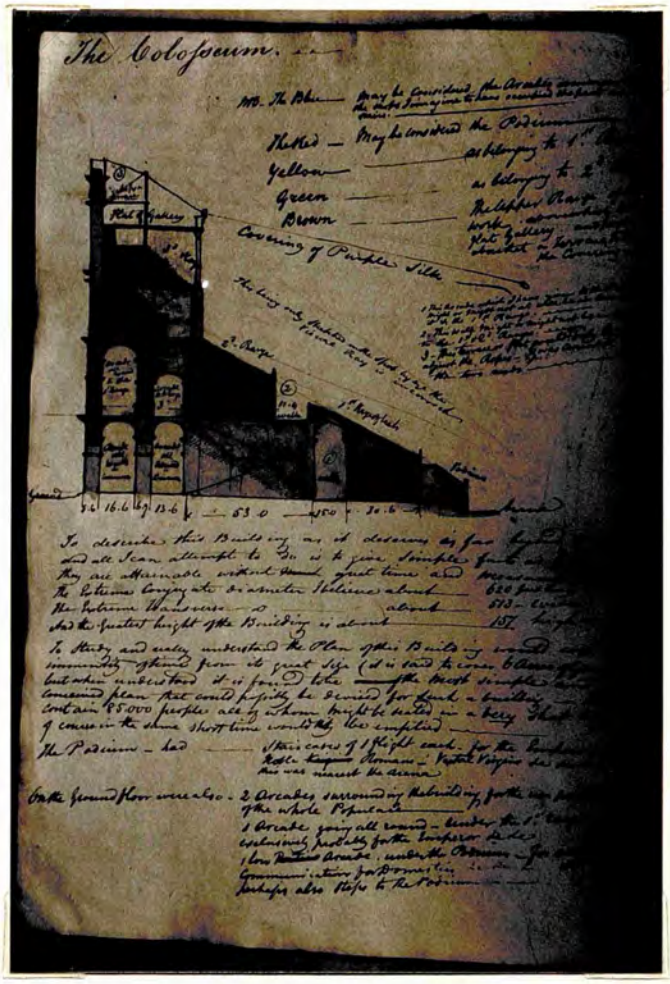
1852	Design for layout of Keppel estate, Windsor.
1852-3	Plans for Kennington Park (lost: unexecuted).
1853	Designs for layout of South Kensington estate for 1851 Exhibition Commissioners (unexecuted).
1855	Designs for new street from Pall Mall to Westminster, with new bridge over lake at St. James's Park (northern part only, from Pall Mall to the Mall - now Marlborough Street - built 1856).
1855	Design for new carriage route across Kensington Gardens (unexecuted).
1861	Design for new street from Thames Embankment to Parliament Square (unexecuted).
1864	Design for layout of building land to south of Battersea Park (unexecuted).



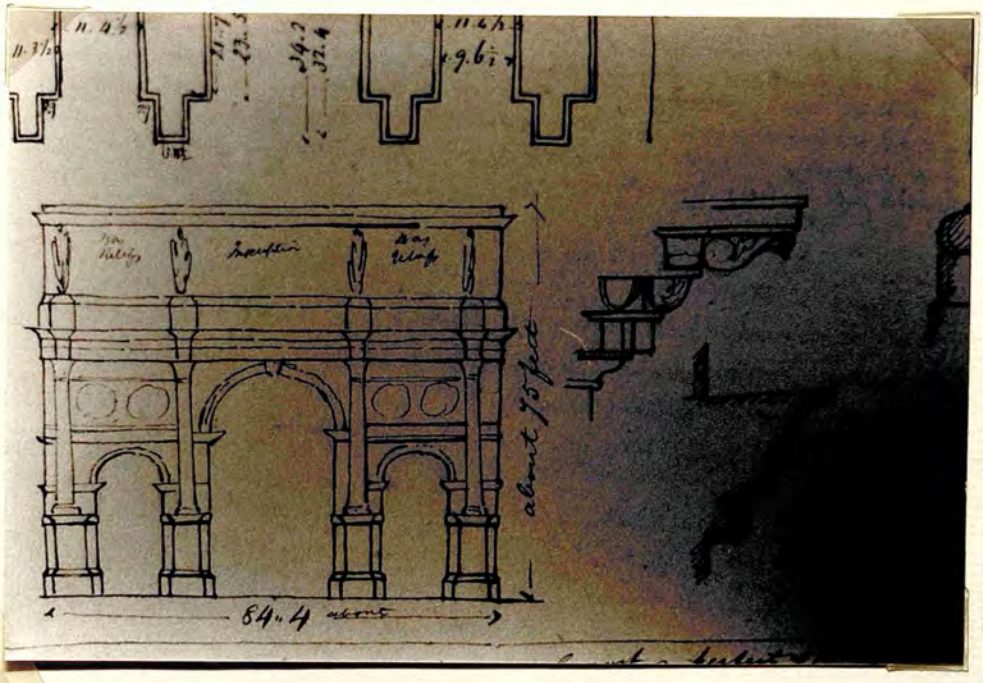
1. View of Worcester by Thomas Pennethorne.



1. Design for a National Monument.



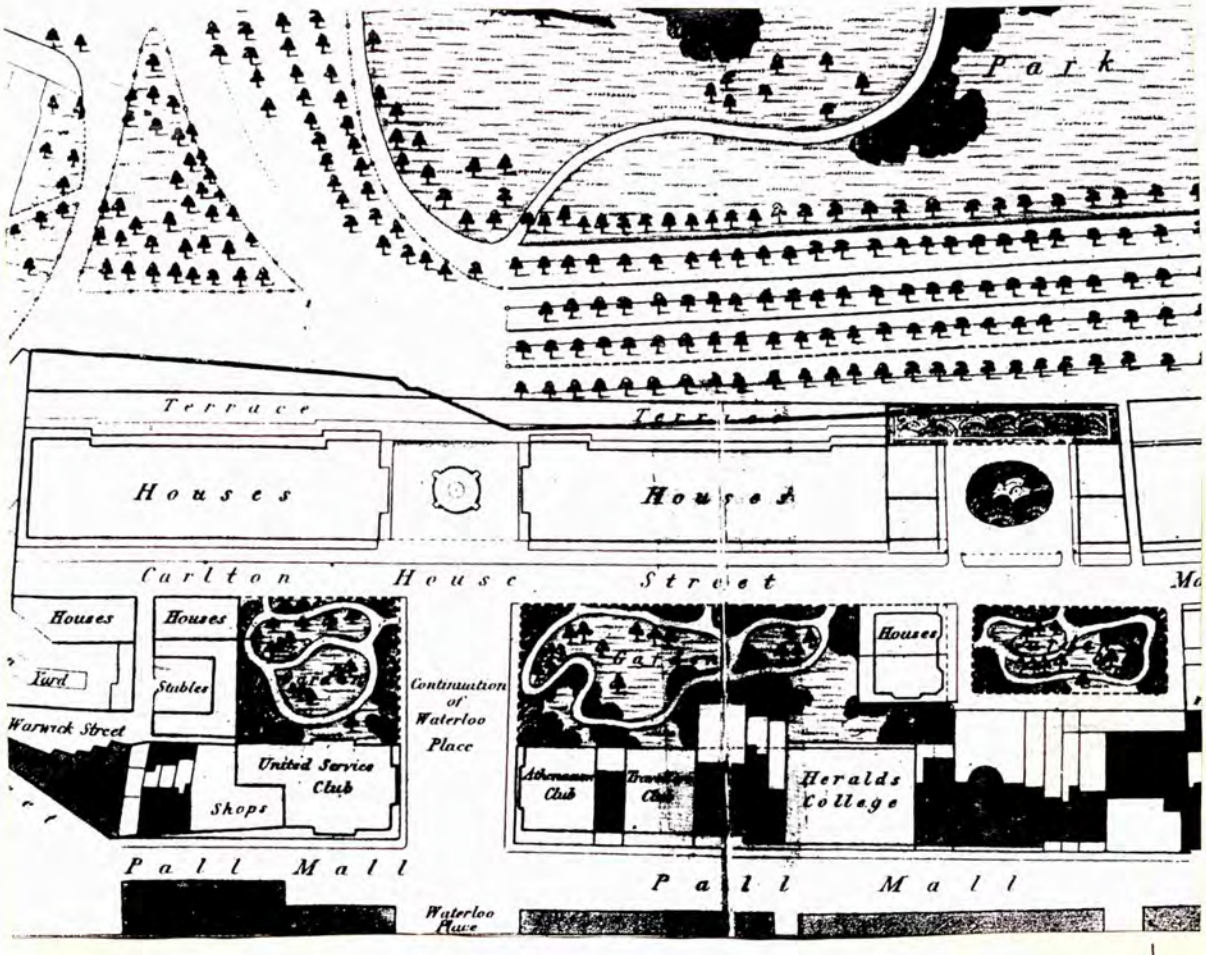
3a. The Colosseum, from James Pennethorne's notebooks.



3b. The Arch of Constantine, from James Pennethorne's notebooks.

4. Design for restoration of the Roman Forum.

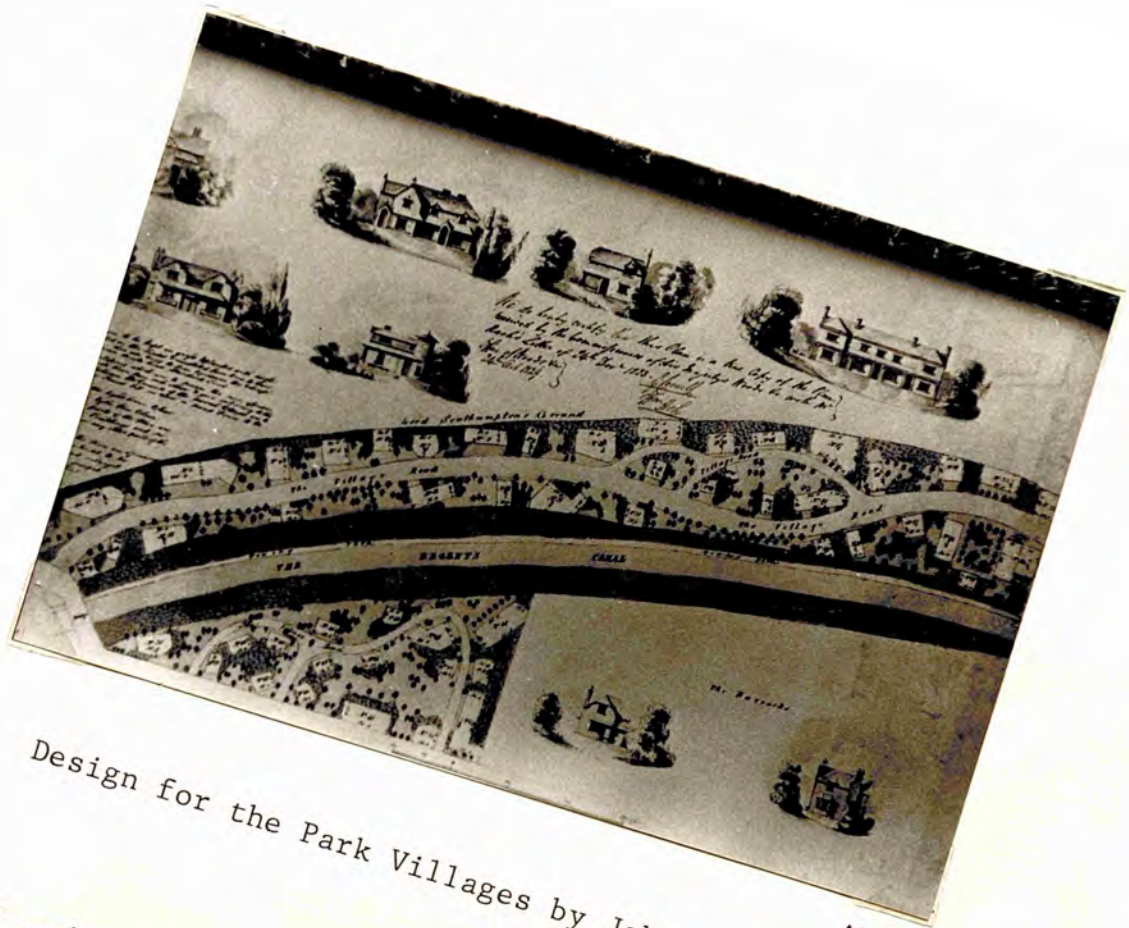
5. Revised design for restoration of the Roman Forum.



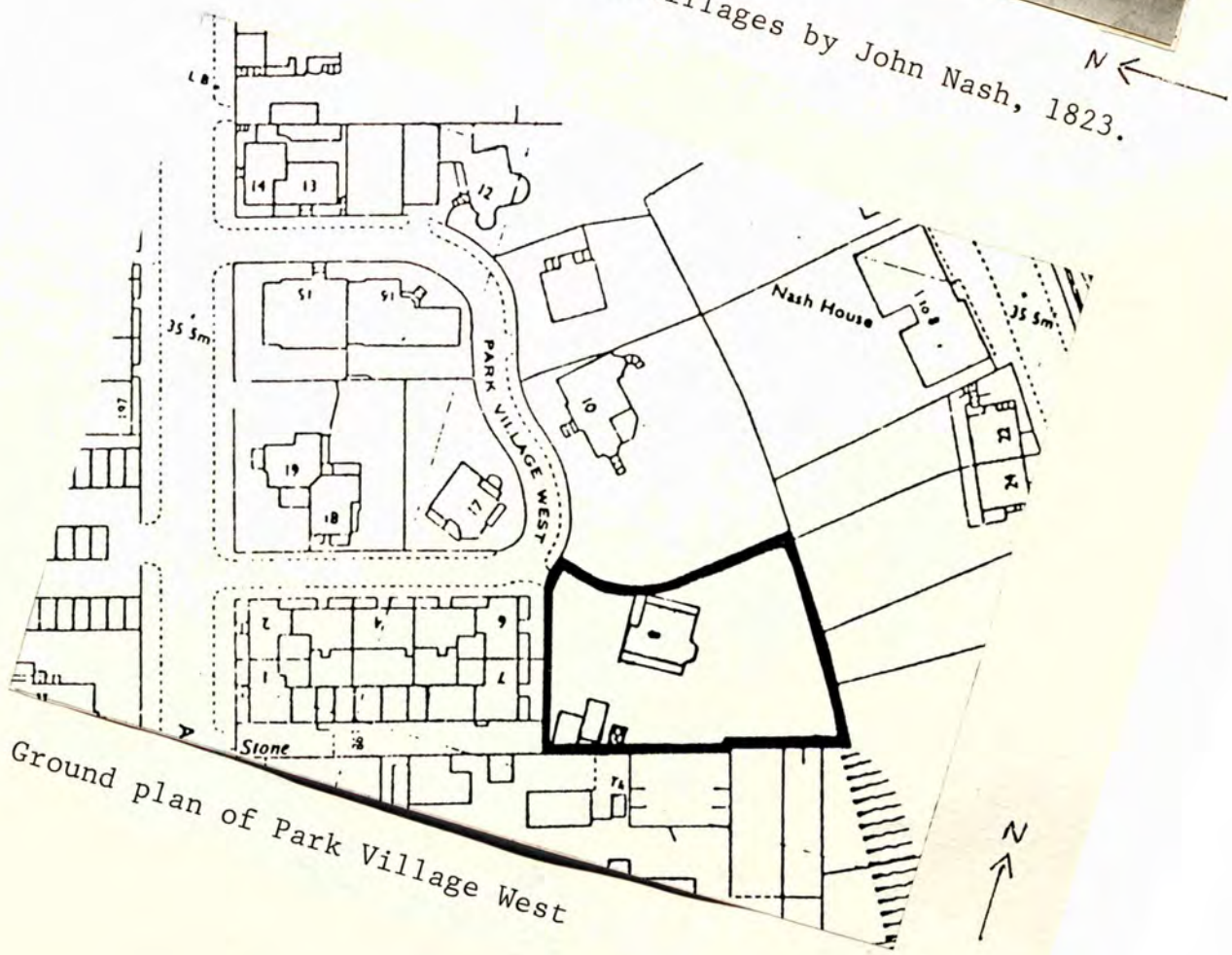
6a. Ground Plan of Carlton House Terrace and the northern part of St. James's Park, 1829.

6b. Carlton House Terrace, west block, looking west.

7. 10 St. James's Street (formerly Crockford's Bazaar) as remodelled after Pennethorne's death.

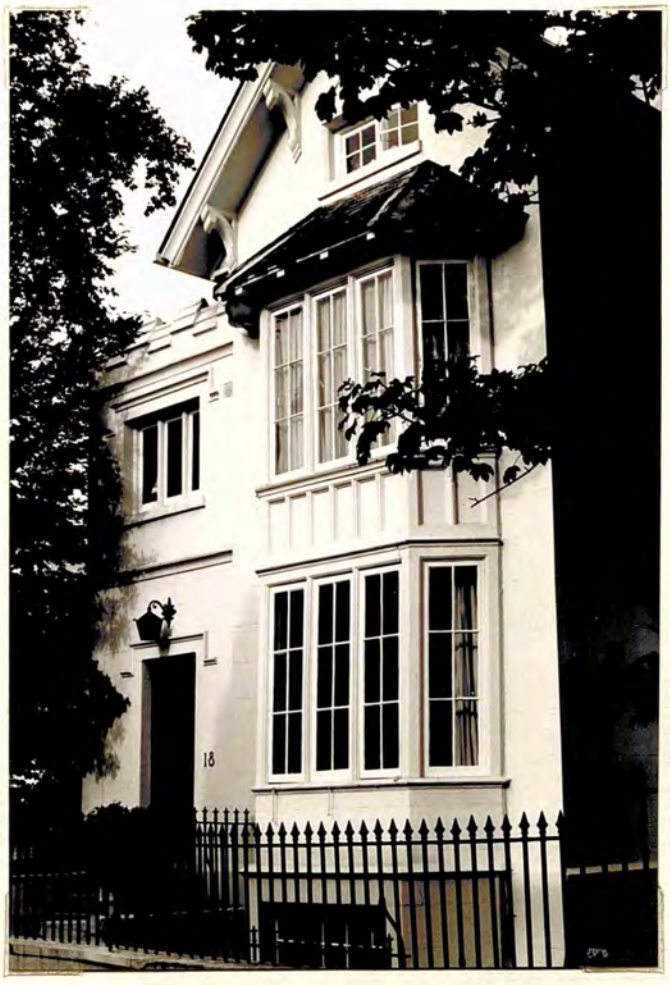


8a. Design for the Park Villages by John Nash, 1823.



8b. Ground plan of Park Village West

9a. Nos. 2-6 Park Village West.



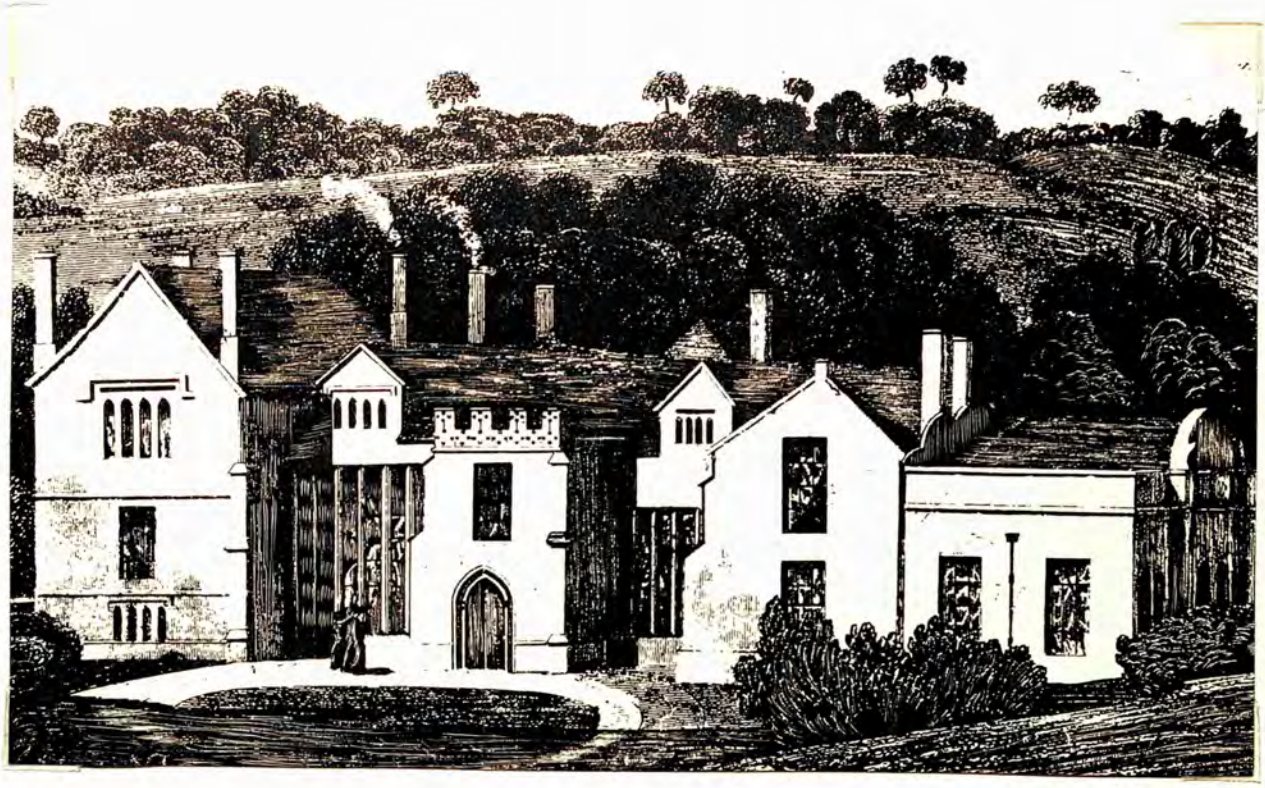
9b. No.18 Park Village West.

10a. Tower House (no.12) Park Village West.

10b. Swithland Hall, garden front.

11a. Swithland Hall, entrance front, showing wings added in 1852.

11b. St. Julians.



12a. Dillington House before rebuilding.

12b. Dillington House, entrance front as rebuilt.

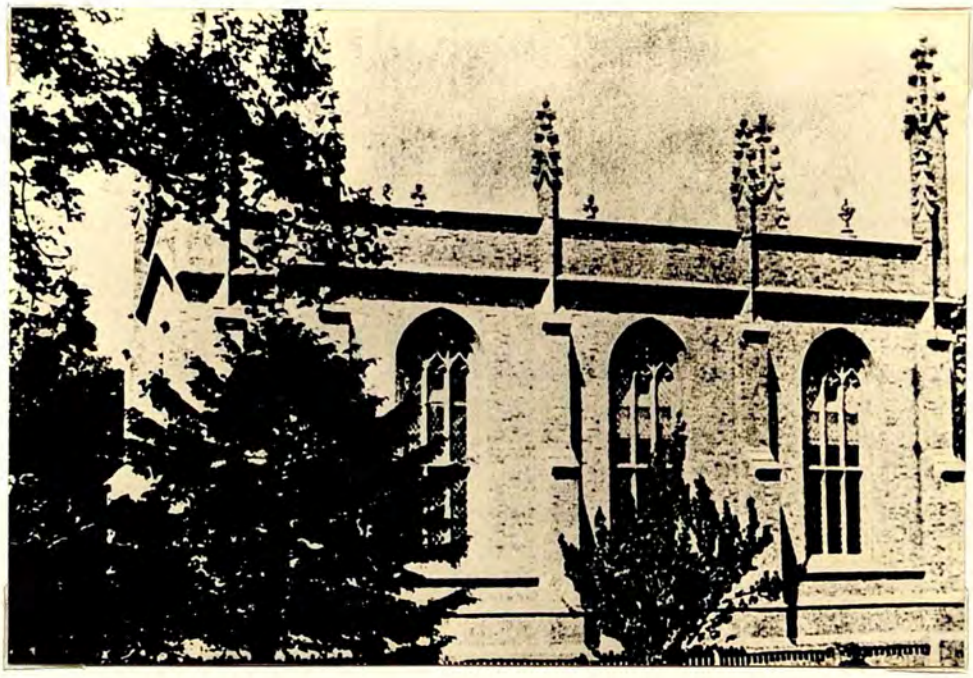
13a. Dillington House, garden front.

13b. Dillington House, entrance hall.

14a. Dillington House, dining room.

14b. Dillington House, chimneypiece in drawing room.

15a. Lamorbey Park.

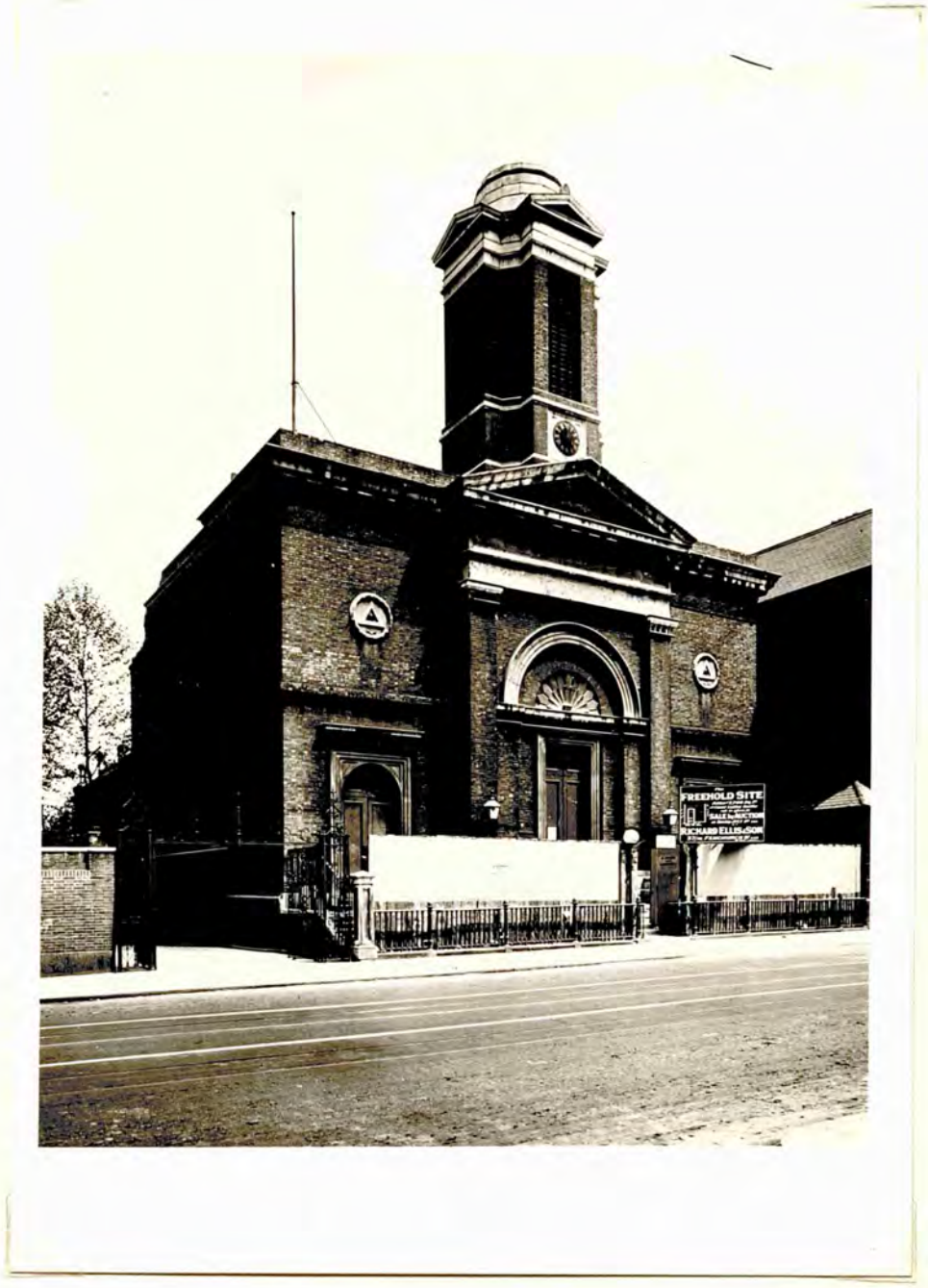


15b. Chapel at Halfway Street, Sidcup.

16. Christ Church, Albany Street.

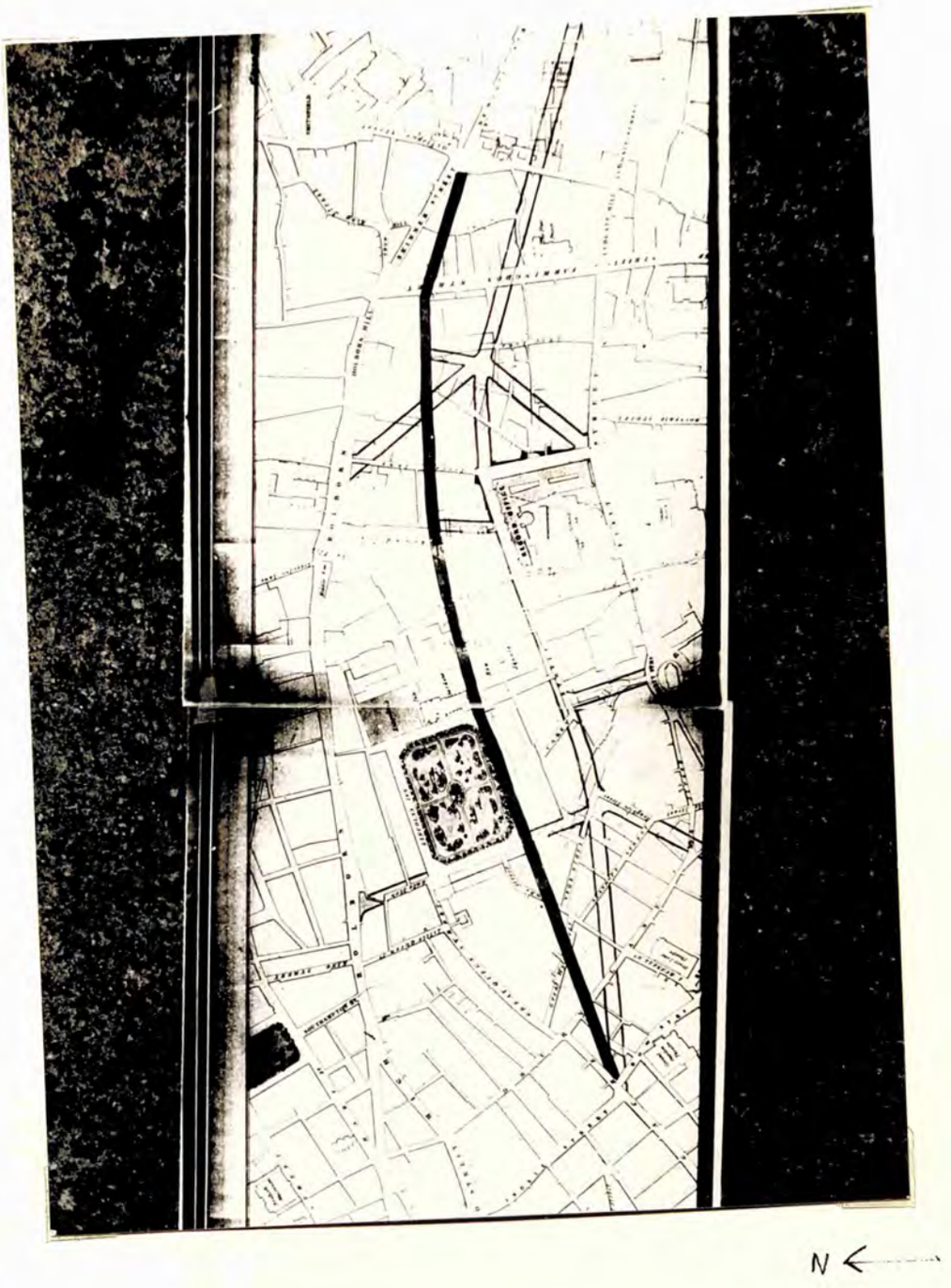
17a. Christ Church, Albany Street, south doorway.

17b. Christ Church, Albany Street, interior looking east.



18. Holy Trinity, Grays Inn Road.

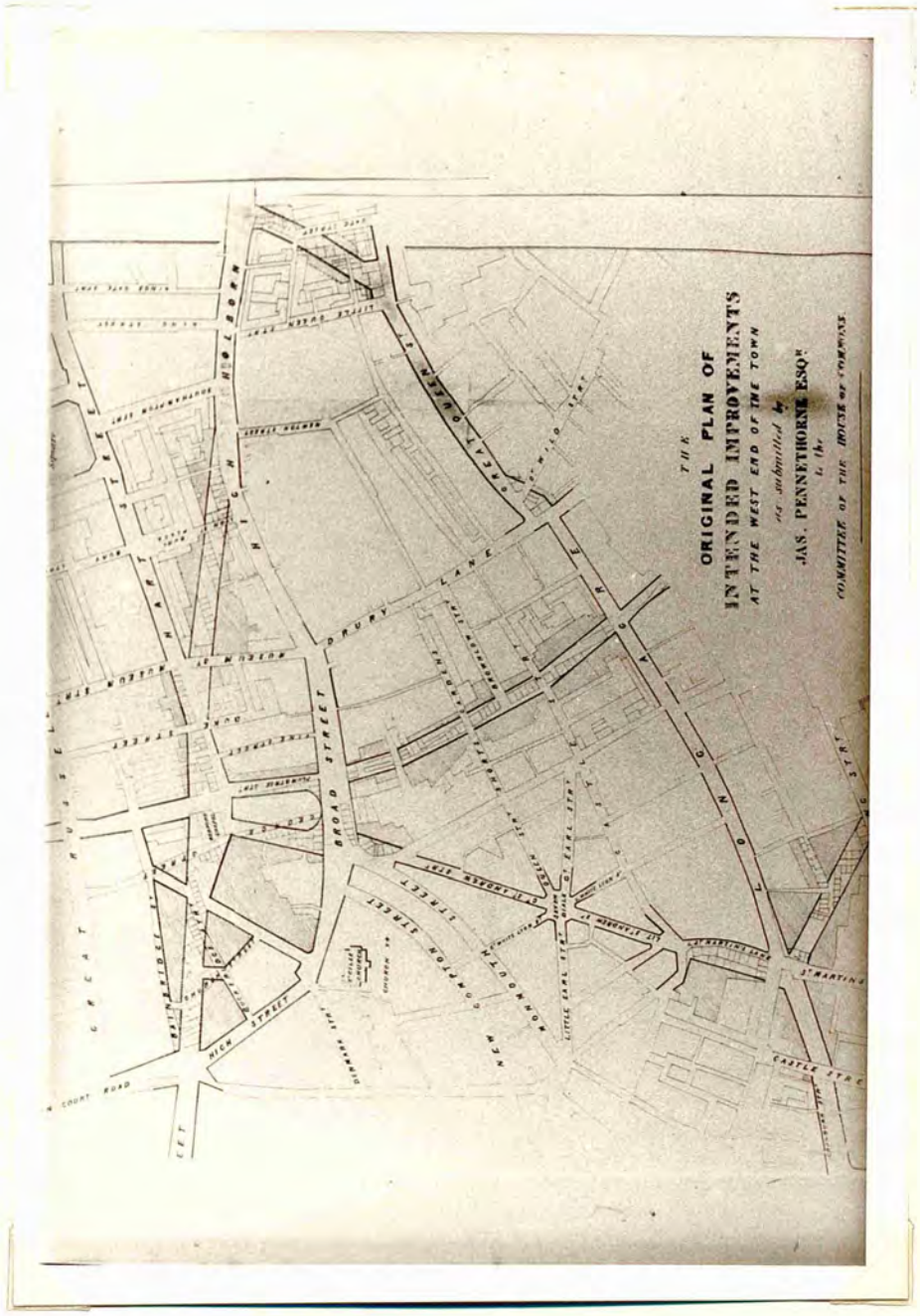
19. Design for the Royal Exchange.



20. Original (1838) and revised (1847) plans for a new street from Long Acre to the City of London.

(The darker line shows the 1838 plan).


HOLBORN
HOLBORN
HOLBORN
Broad
Street
HIGH
Lincoln's Inn Fields
Portugal Street
STREET
STRAND
Temple
Bar
Charing Cross
Whitehall
Waterloo Pl.
Regent Street
Quadrant
Haymarket
Piccadilly
Oxford Street
Great Russell Street
Bedford Square
Tottenham Court Road
Charles Street
Berners Street
Hanover Square
Grosvenor Square
Mayfair
Soho
Covent Garden
Drury Lane
Wellington St.
Waterloo Bridge
Somerset House
Adelphi
Strand
Fleet Street
Ludgate Hill
St. Paul's
Cathedral
Blackfriars Bridge
Westminster Bridge
Westminster Abbey
Houses of Parliament
St. James's Park
Buckingham Palace
Green Park
Hyde Park
Kensington Gardens
Marlborough House
Carlton House Terrace
Trafalgar Square
National Gallery
Leicester Square
Seven Dials
Bloomsbury
Russell Square
Euston Road
Euston Square
Gower Street
Tavistock Square
Foundling Hospital
Coram Fields
Queen Square
Red Lion Square
Lincoln's Inn
Gray's Inn
Chancery Lane
Temple Bar
Fleet Market
Holborn Bridge
Holborn Hill
Farringdon Street
Newgate Street
Cheapside
Poultry
Mansion House
Bank of England
Royal Exchange
Cornhill
Leadenhall Street
Aldgate
Whitechapel
Minories
Tower of London
Tower Hill
Billingsgate
Custom House
London Bridge
Southwark Bridge
Cannon Street
Queen Victoria Street
Blackfriars
Southwark
Borough
Bridge Street
Westminster
Pall Mall
St. James's Street
Piccadilly
Regent Street
Oxford Street
Tottenham Court Road
Hampstead Road
Euston Road
Gower Street
Bedford Square
Russell Square



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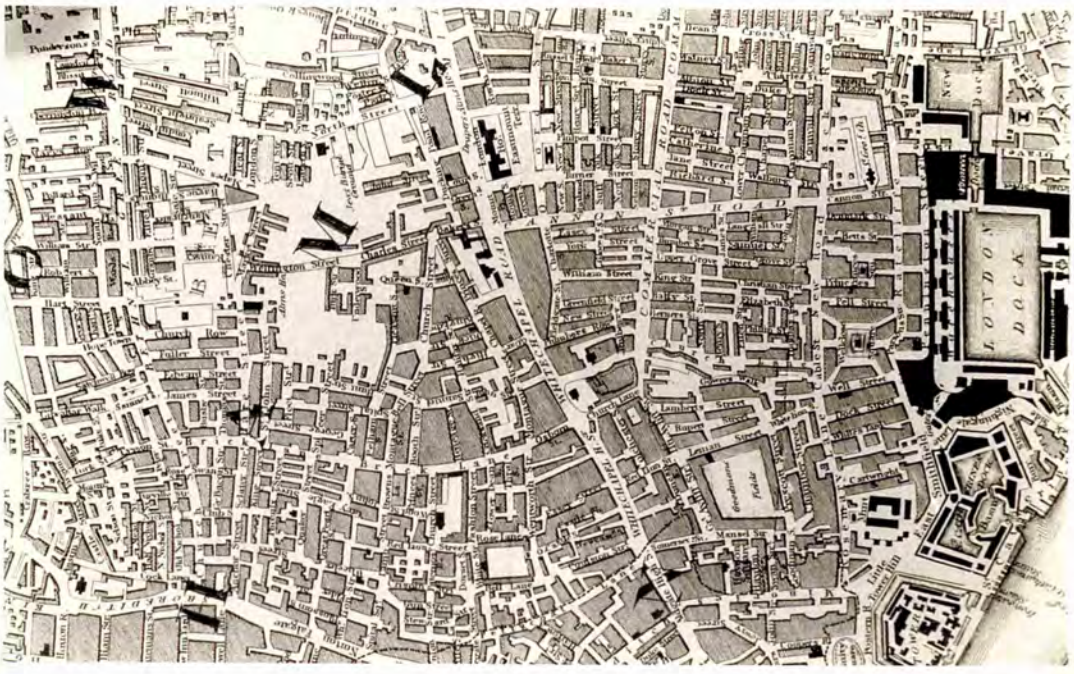
22. James Pennethorne's original plan for New Oxford Street, Endell Street and neighbourhood.



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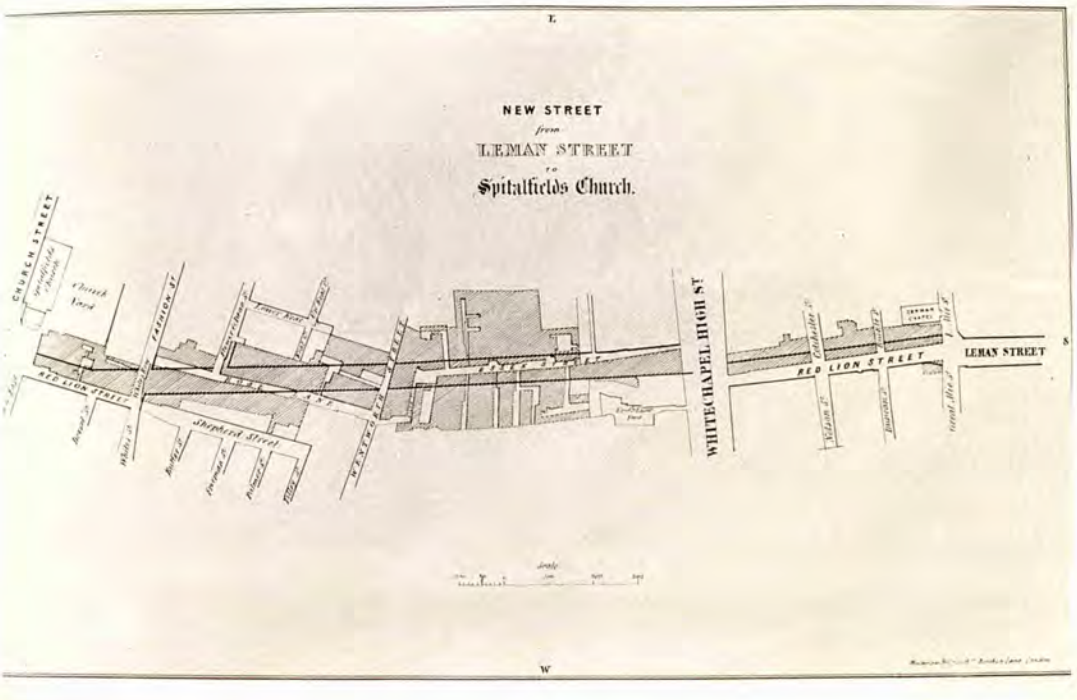
23a. Map of Whitechapel and Shoreditch in 1832.



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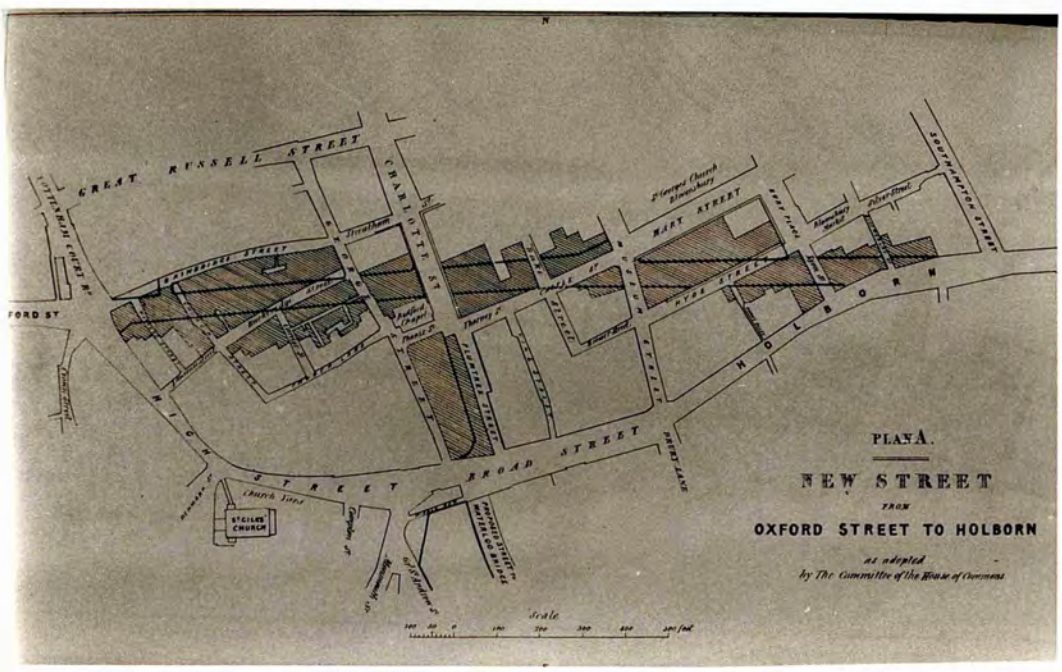
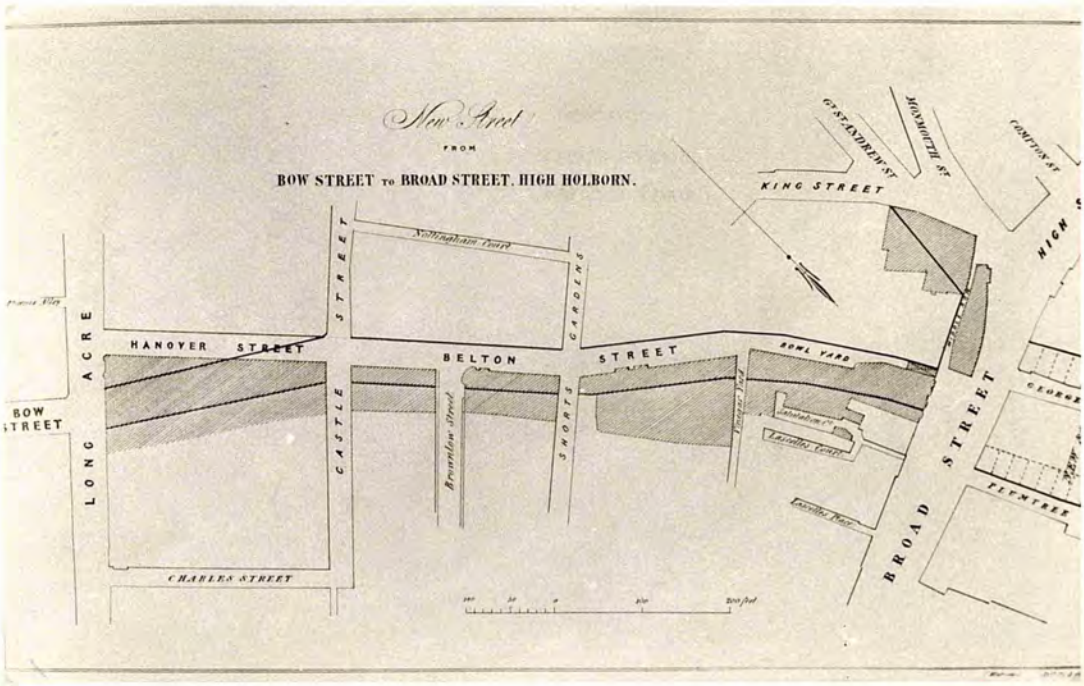
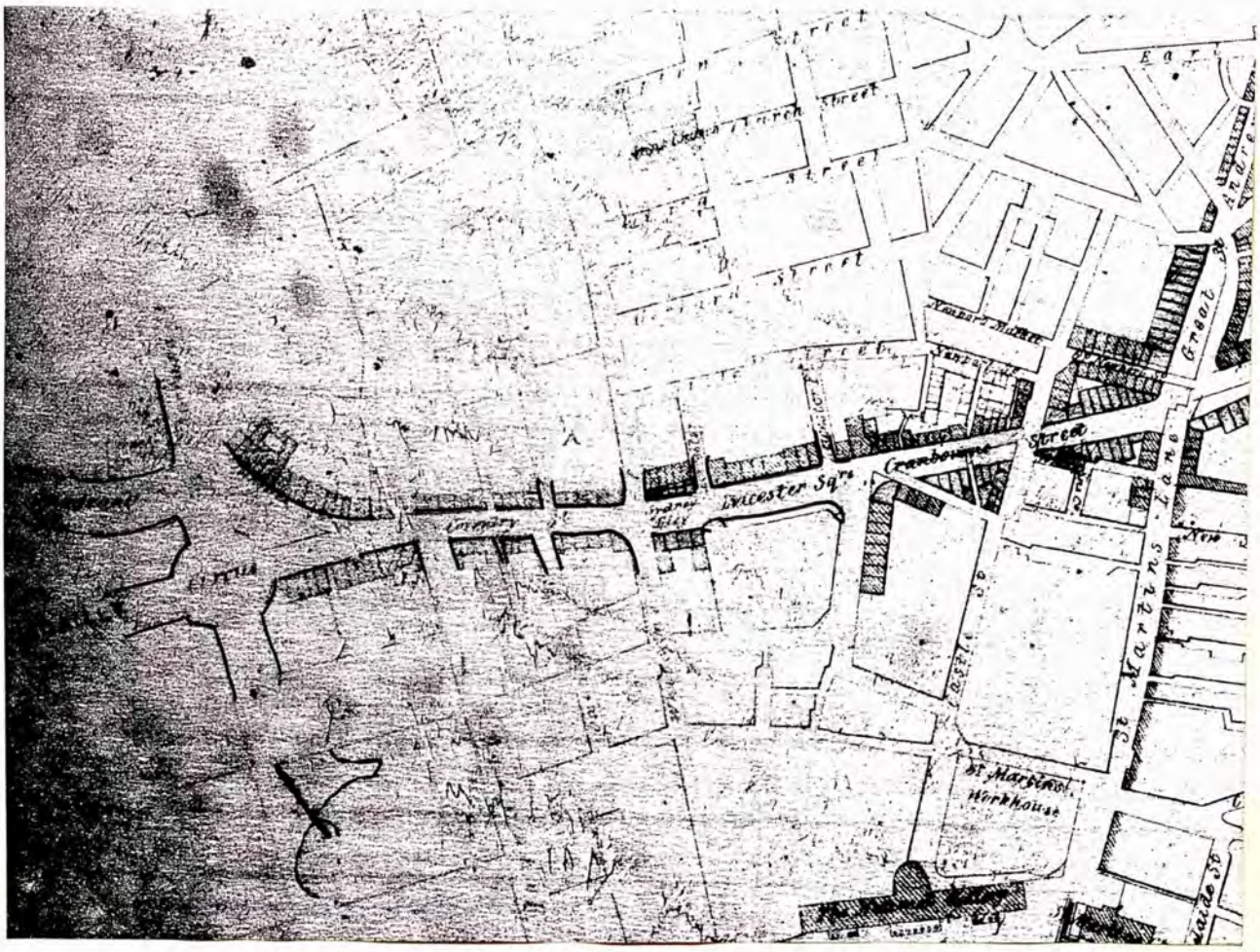
23b. Plan of the southern part of Commercial Street, as executed.



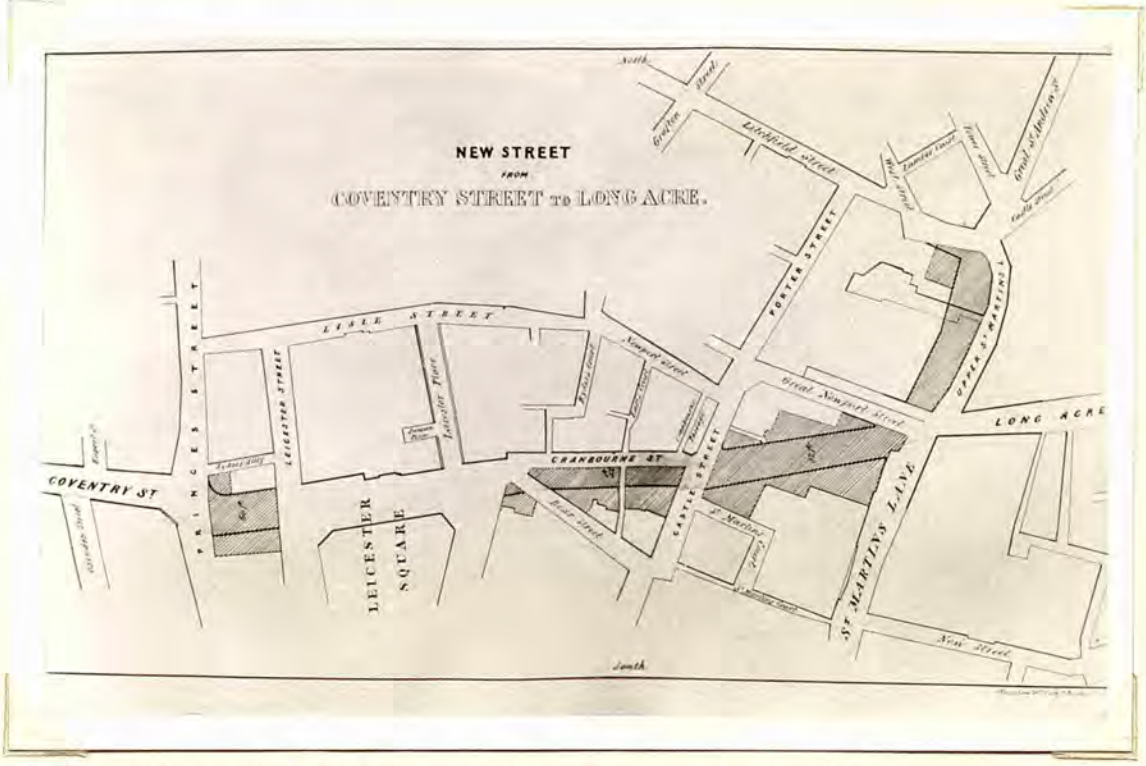
24a. Plan of New Oxford Street, as executed.



24b. Plan of Endell Street, as executed.



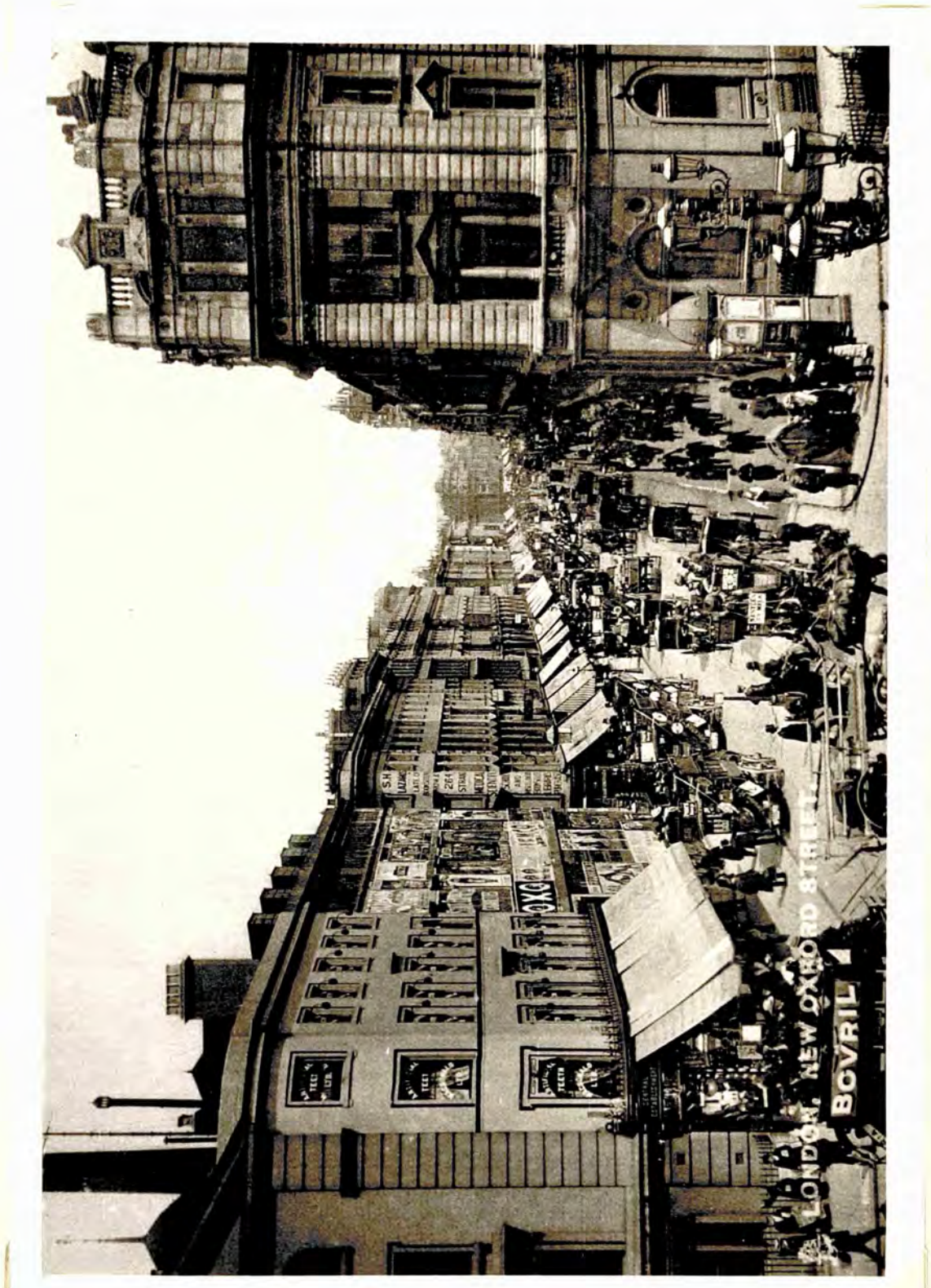
25a. Original plan for a new street from Piccadilly Circus to Long Acre.



25b. Plan of Cranbourne Street, as executed.

26a. Cranbourne Street in 1851, looking west from St. Martin's Lane.

26b. Cranbourne Street, looking east from Charing Cross Road.



27. New Oxford Street, western part, looking east from Tottenham Court Road c.1903.

28a. Block of shops on southern side of Coventry Street, in 1845.

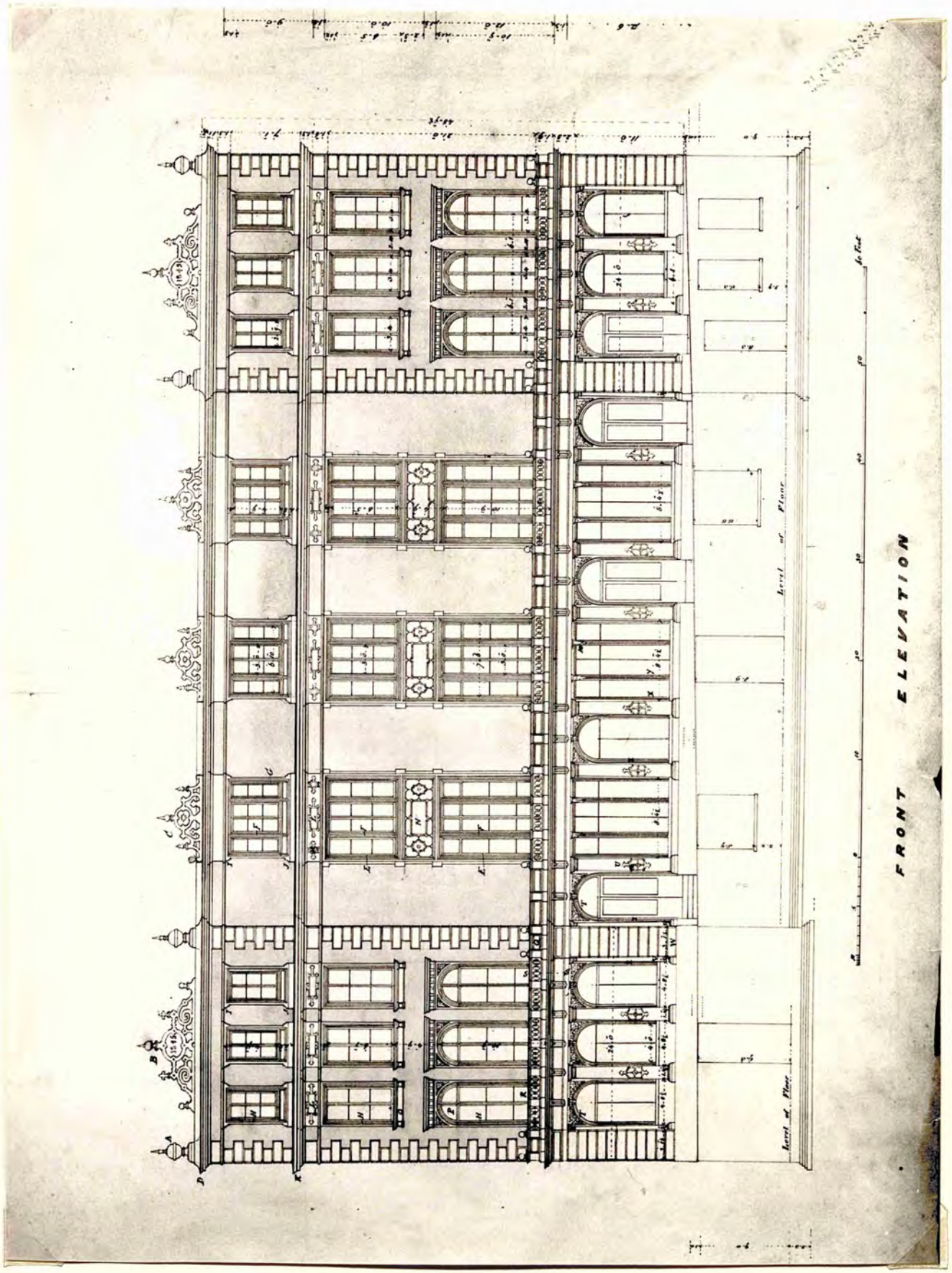
28b. Nos. 28-34 Cranbourne Street.

29a. Nos. 45-52 New Oxford Street.

29b. Block of shops on northern side of New Oxford Street.

30. New Oxford Street, eastern part, junction with Bloomsbury Way, 1929.

31. New Oxford Street, western part, looking west from Bloomsbury Street, former shopping arcade in right middle distance,
1928.



32. Block of shops and chambers at the junction of Bloomsbury Street and Broad Street, St. Giles.

33a Endell Street, east side, former stained glass factory in foreground.

33b. Endell Street, west side looking north, former St. Giles National Schools in distance.

34. Commercial Street, southern end, with St. Jude's church.

35a. Commercial Street, looking south.

35b. Former school at junction of Leman Street and Alie Street.


N
Wellington Barracks
Westminster Palace Hotel
Millbank Penitentiary
Regent's Canal
Grosvenor Canal
Chelsea Waterworks
Grosvenor Basin
Victoria Station
Victoria Street
Stag Brewery
Vauxhall Bridge
Vauxhall Bridge Road
Grosvenor Road
Pimlico Road
Belgrave Road
Orphanage
Orphanage Road
Warwick Square
Warwick Street
Warwick Way
Wilton Road
Wilton Place
Wilton Crescent
Wilton Street
Grosvenor Gardens
Grosvenor Place
Grosvenor Crescent
Grosvenor Crescent Mews
Hobart Place
Chapel Street
Lower Belgrave Street
Eccleston Square
Eccleston Bridge
Eccleston Place
Eccleston Street
Buckingham Palace Road
Buckingham Palace Road Station
Palace Street
Palace Chambers
Palace Gate
Chester Square
Chester Street
Chester Terrace
Cliveden Place
Ebury Bridge
Ebury Street
Ebury Square
Ebury Mews
Pimlico Terrace
Pimlico Station
Pimlico Road
Pimlico Pier
Pimlico Wharf
Pimlico Tramway
Lupus Street
Lupus Street Station
Moreton Terrace
Moreton Street
Moreton Place
Moreton Terrace Mews
Tachbrook Street
Tachbrook Mews
Tachbrook Terrace
Regency Street
Regency Terrace
Regency Mews
Rochester Buildings
Rochester Row
Rochester Mews
Vincent Square
Vincent Square Mews
Vincent Terrace
Vincent Street
Vincent Square Infant School
Vincent Square Boys' School
Vincent Square Girls' School
Vincent Square Infirmary
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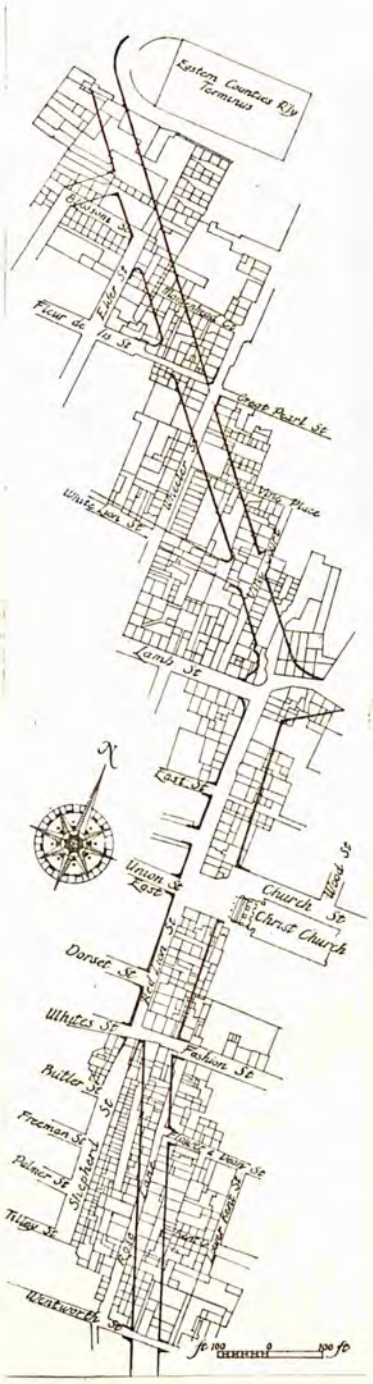
37a. Garrick Street.

37b. Chelsea Bridge Road.

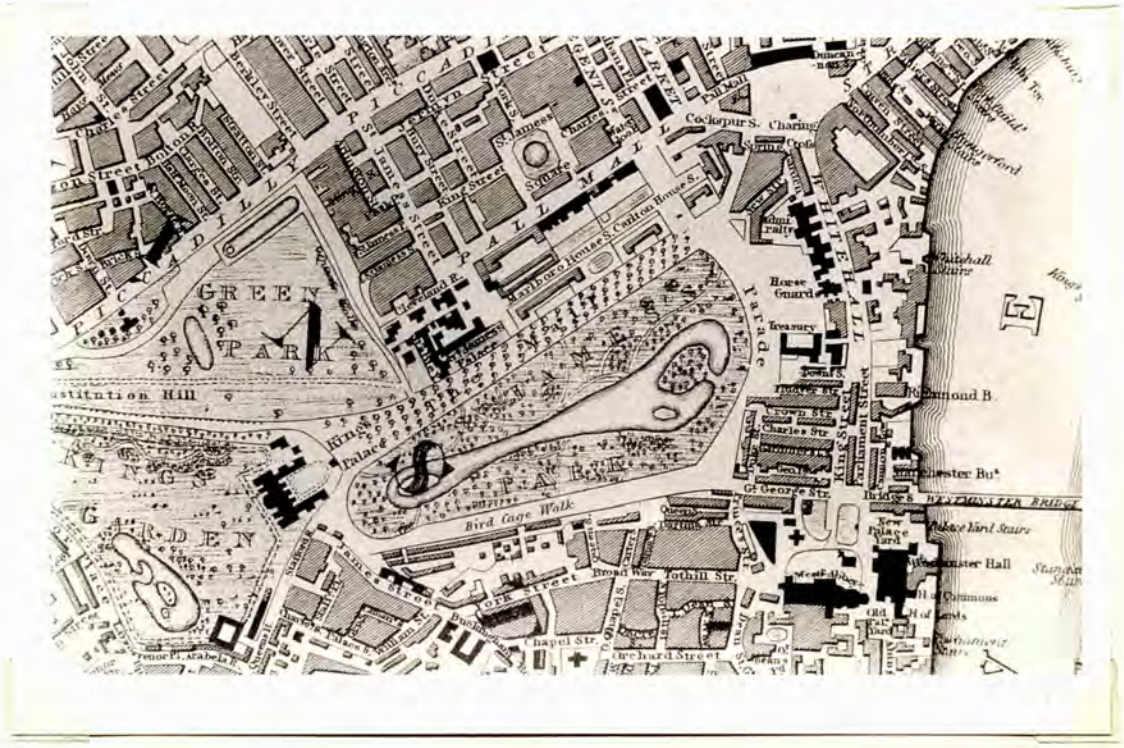


38. Plan of Commercial Street, northern extension.

39. Commercial Street, northern extension looking north from Christ Church, Spitalfields, c.1907.

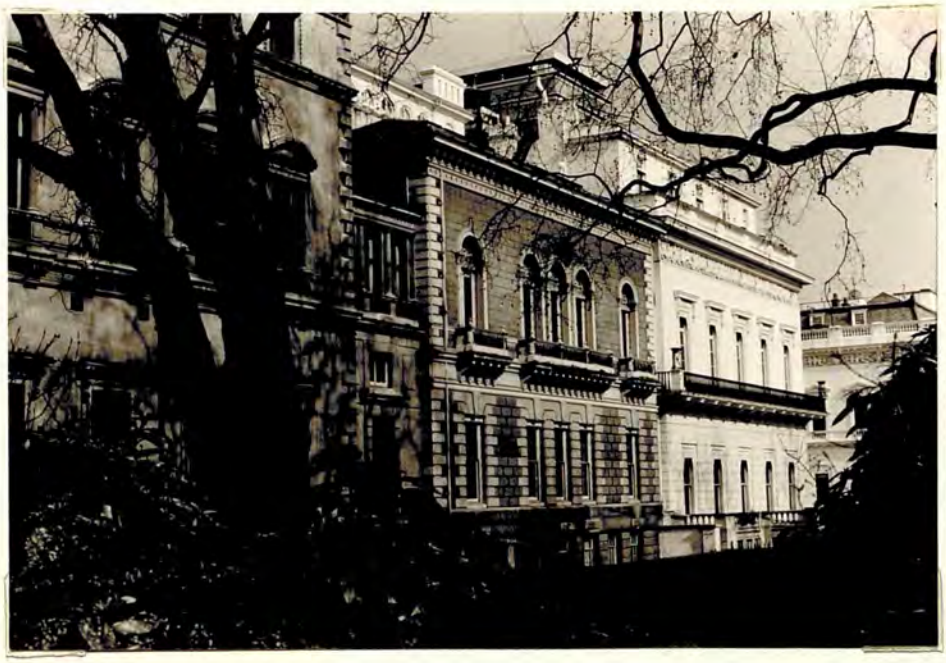
40a. Map of the South Bank in 1832.

40b. James Pennethorne's plan for a new street on the South Bank, 1846.



41. Map of St. James and Whitehall in 1832.

42a. Pall Mall in the late 19th century, looking west, Carlton Club in foreground.



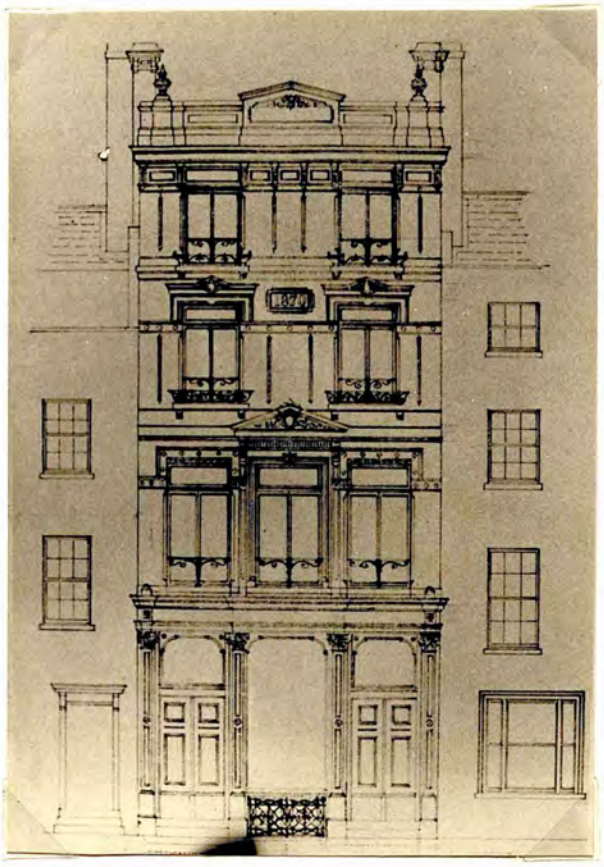
42b. Travellers Club and Atheneum, garden fronts.

43a. Former Thatched House Club and Conservative Club, St. James's Street.

43b. No.11 Ryder Street.

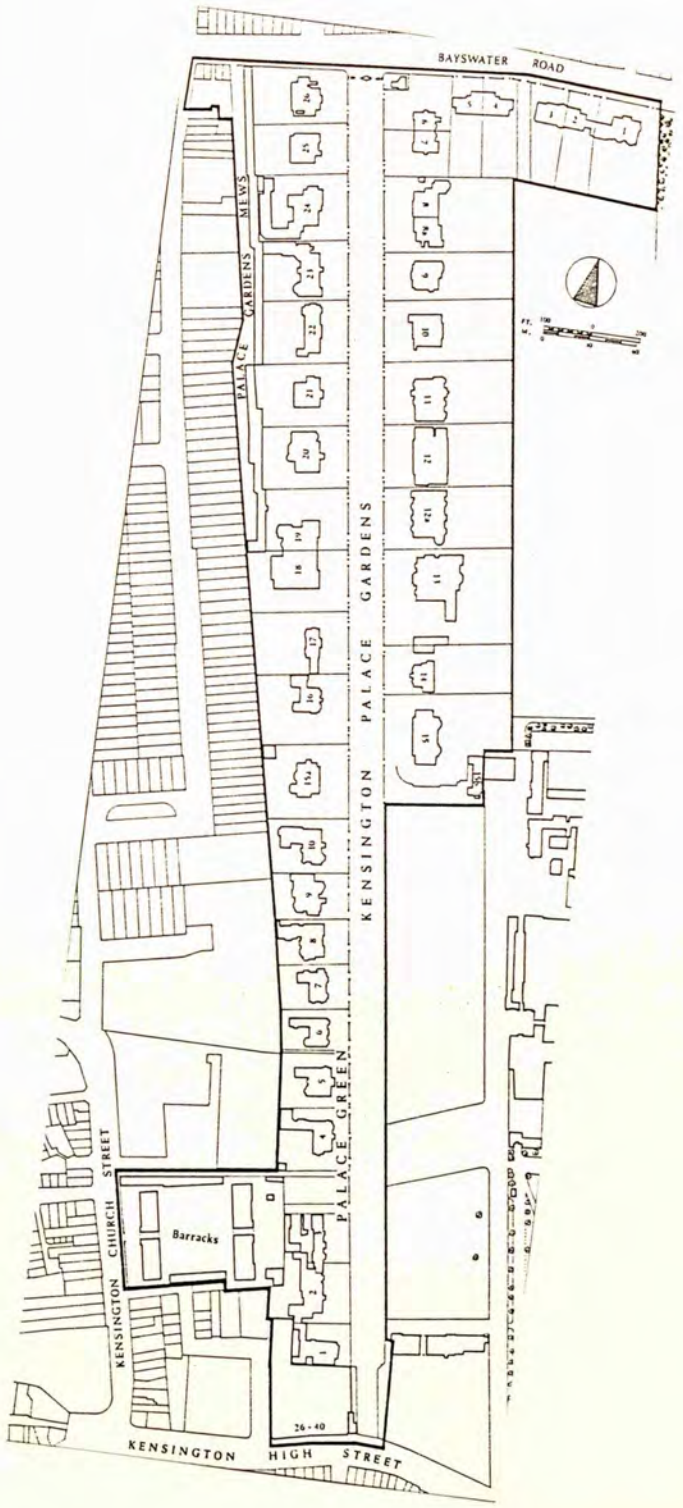
44a. The Quadrant, Regent Street in its original state.

44b. The Quadrant, Regent Street, after removal of colonnades.

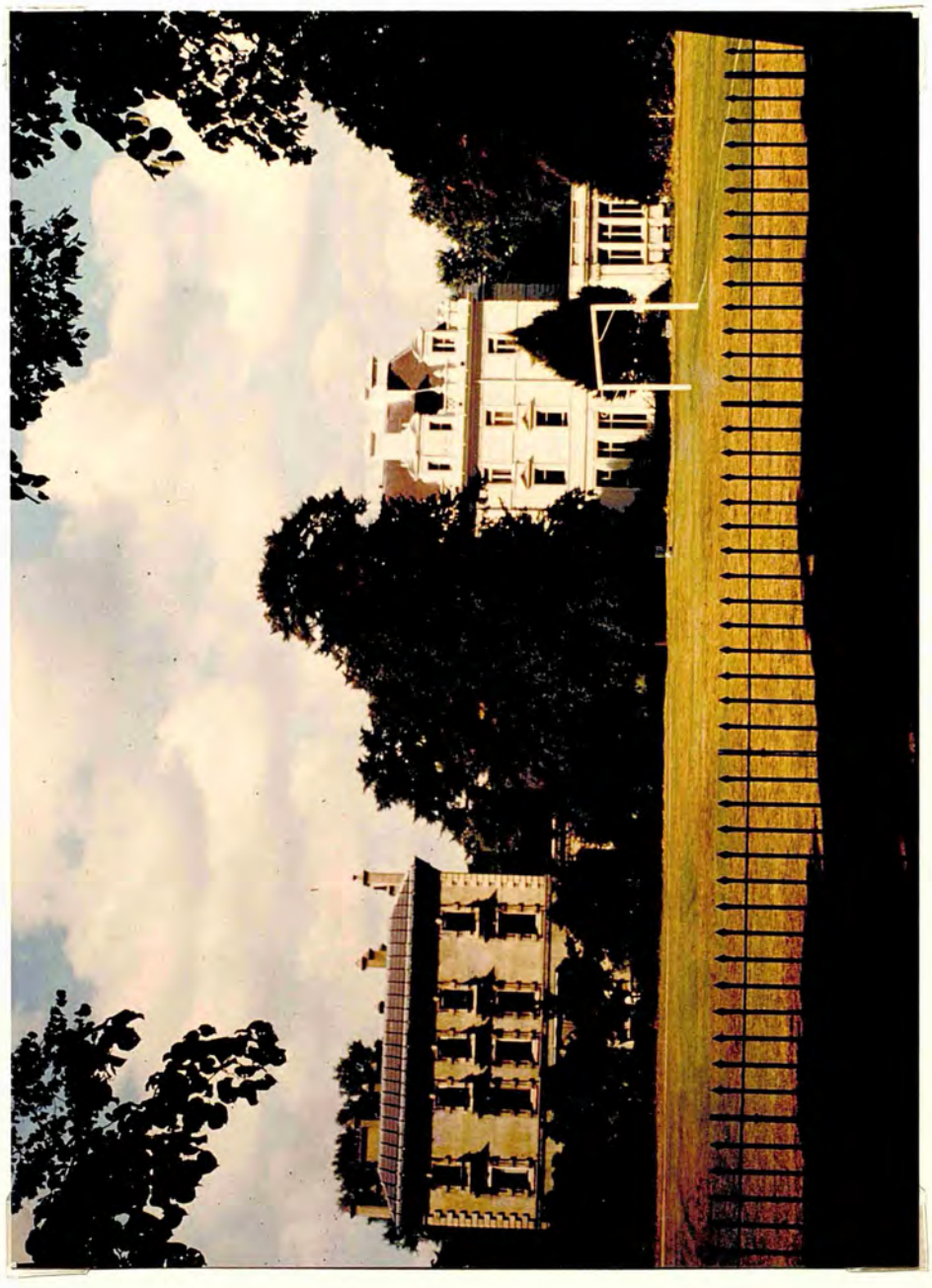


45a. No. 8 Air Street, designed by Arthur Cates.

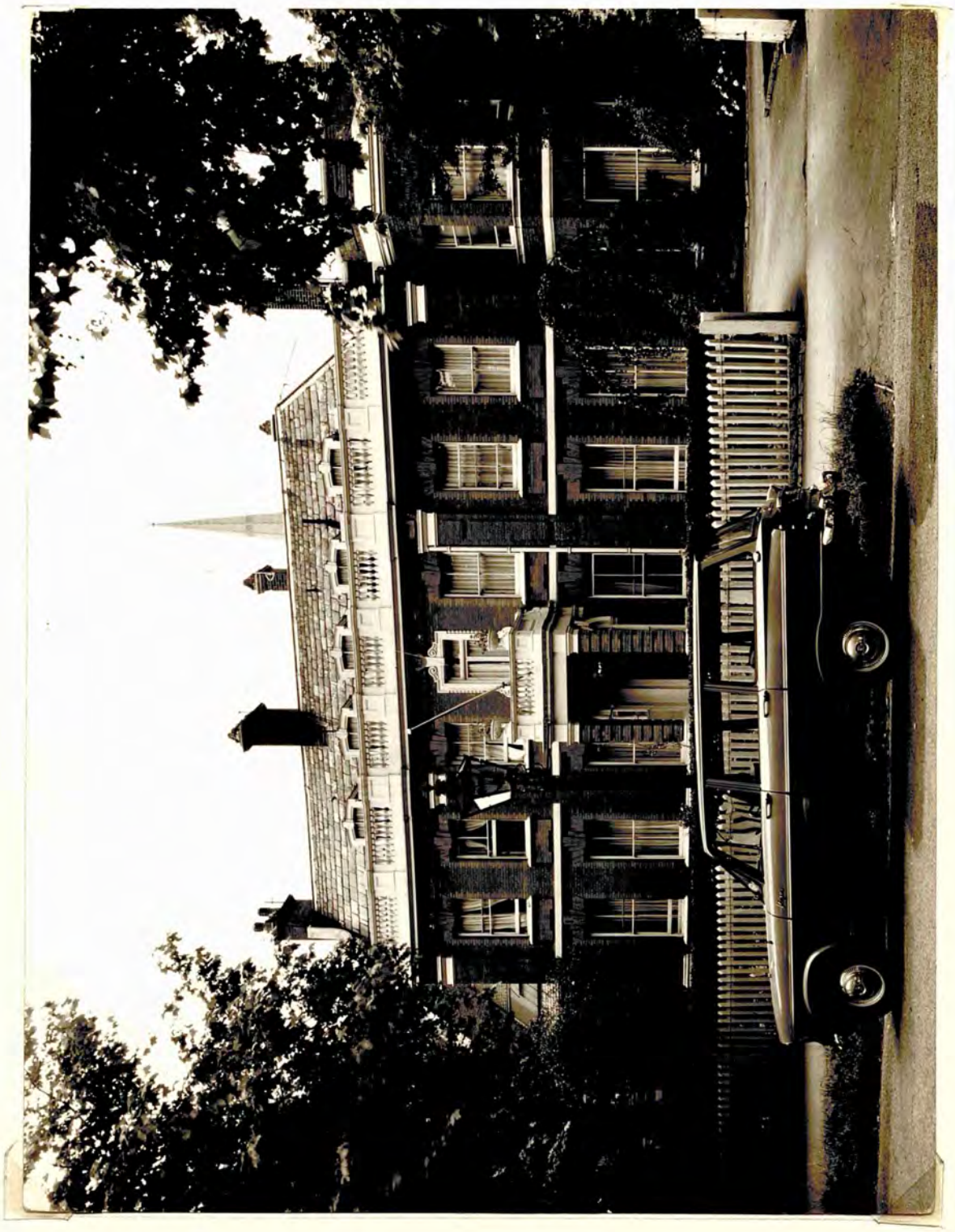
45b. Houses at Millbank.



46. Plan of Kensington Palace Gardens.

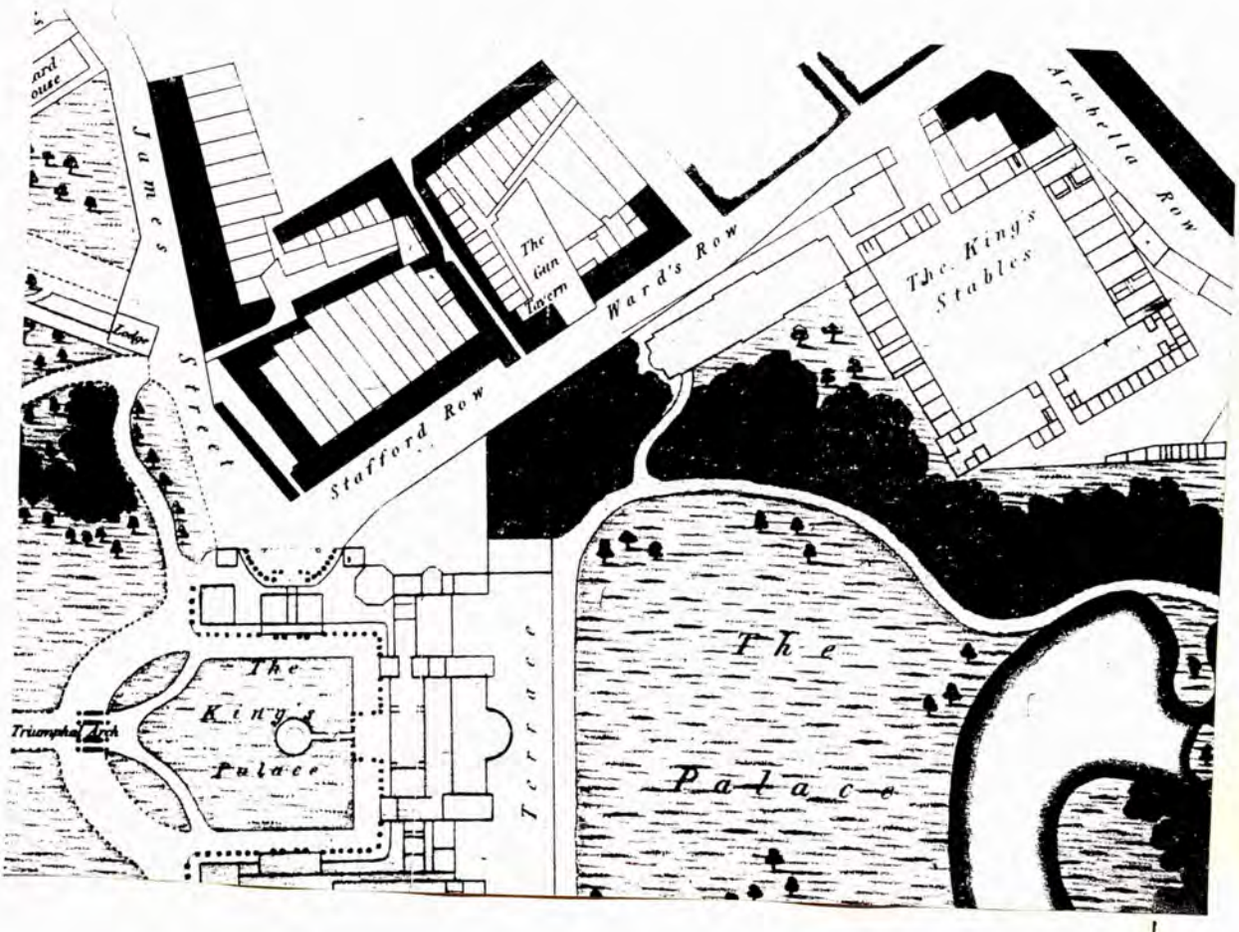


47. Nos. 12 & 11 Kensington Palace Gardens, from Kensington Gardens.



48. No.2 Palace Green.

49. No.1 Palace Green.

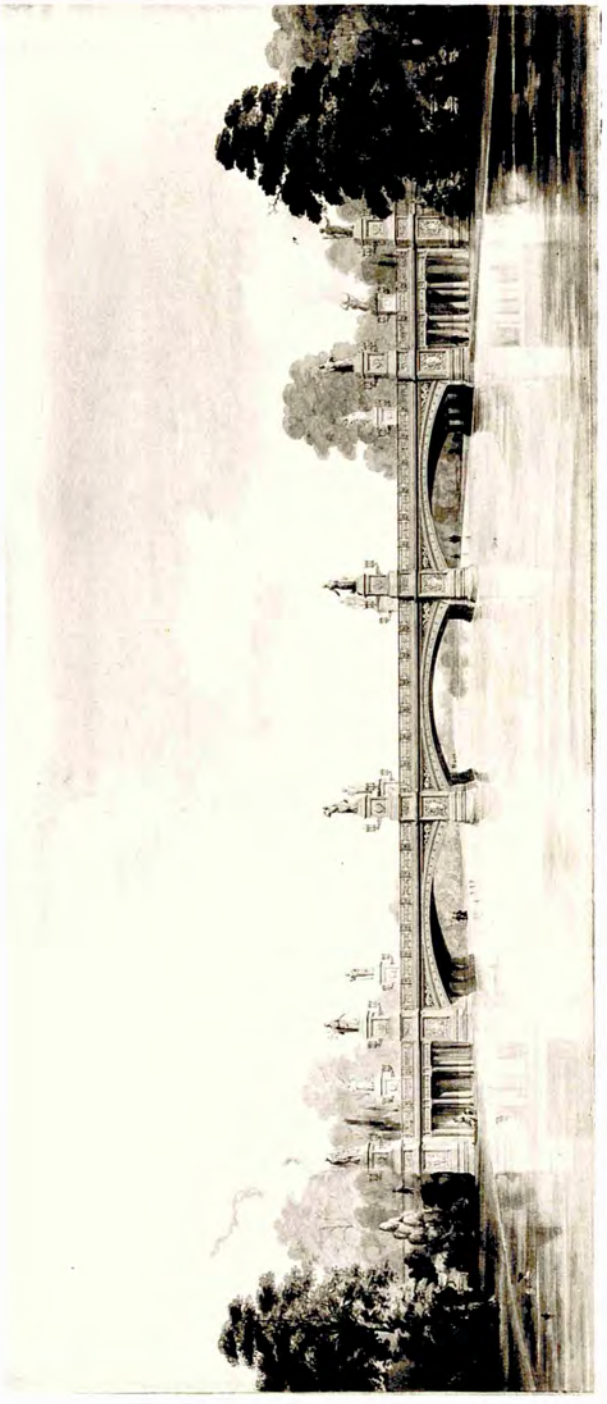


50a. Plan of Buckingham Palace and its southern surroundings, 1829.

50b. Map showing the "Pimlico Improvement", 1869.

51a. Pimlico district Post Office and Palace Hotel in 1861.

51b. Duchy of Cornwall Office and nos. 4-9 Buckingham Gate.



52. Design for a road bridge over the lake in St. James's Park.

53. Map of St. James's Park, 1869.

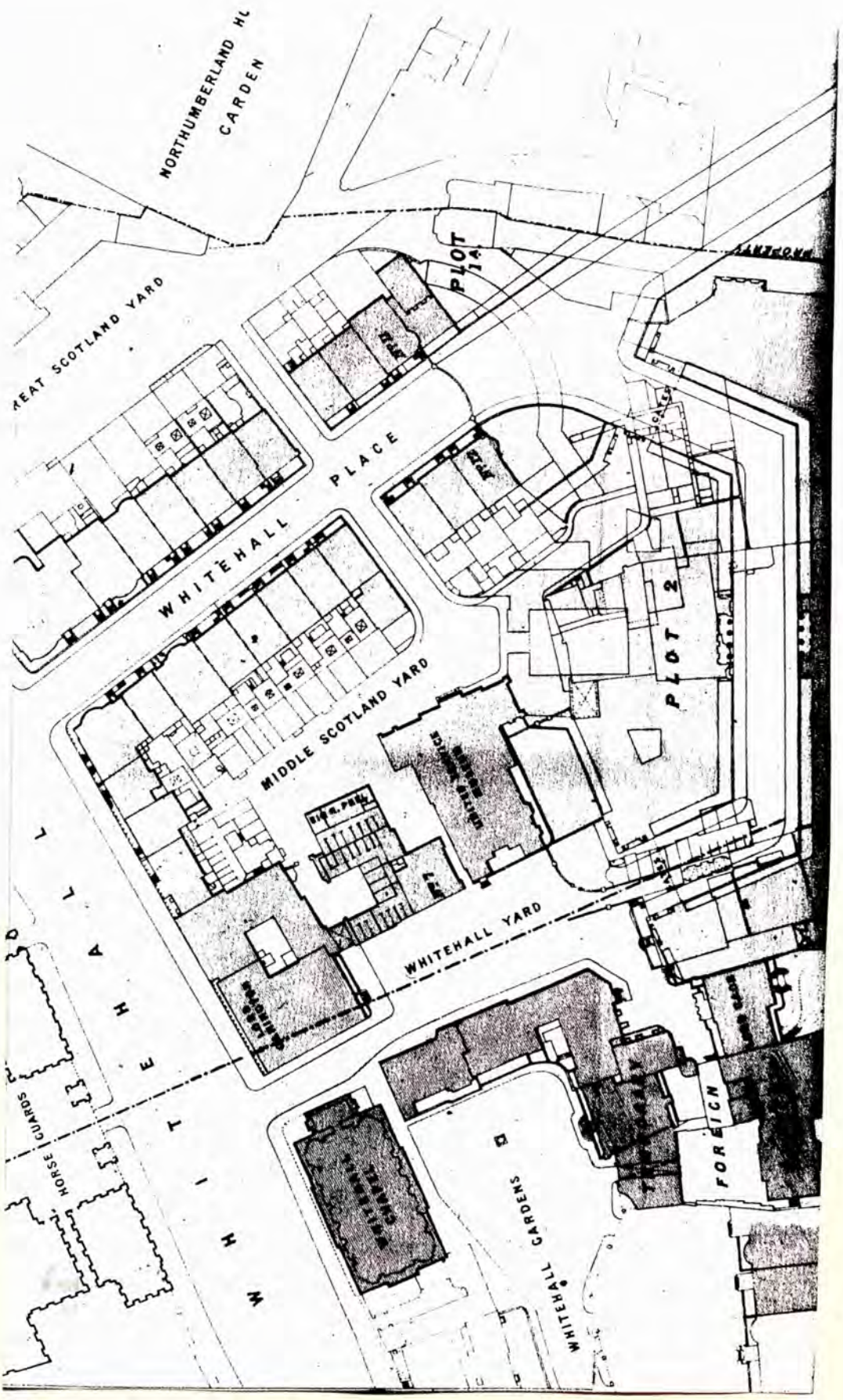
54a. Marlborough Road, looking north.

54b. Marlborough Road, looking south, with lodge to Marlborough House and Inigo Jones's Queen's Chapel.

55. Map of Whitehall in 1860.

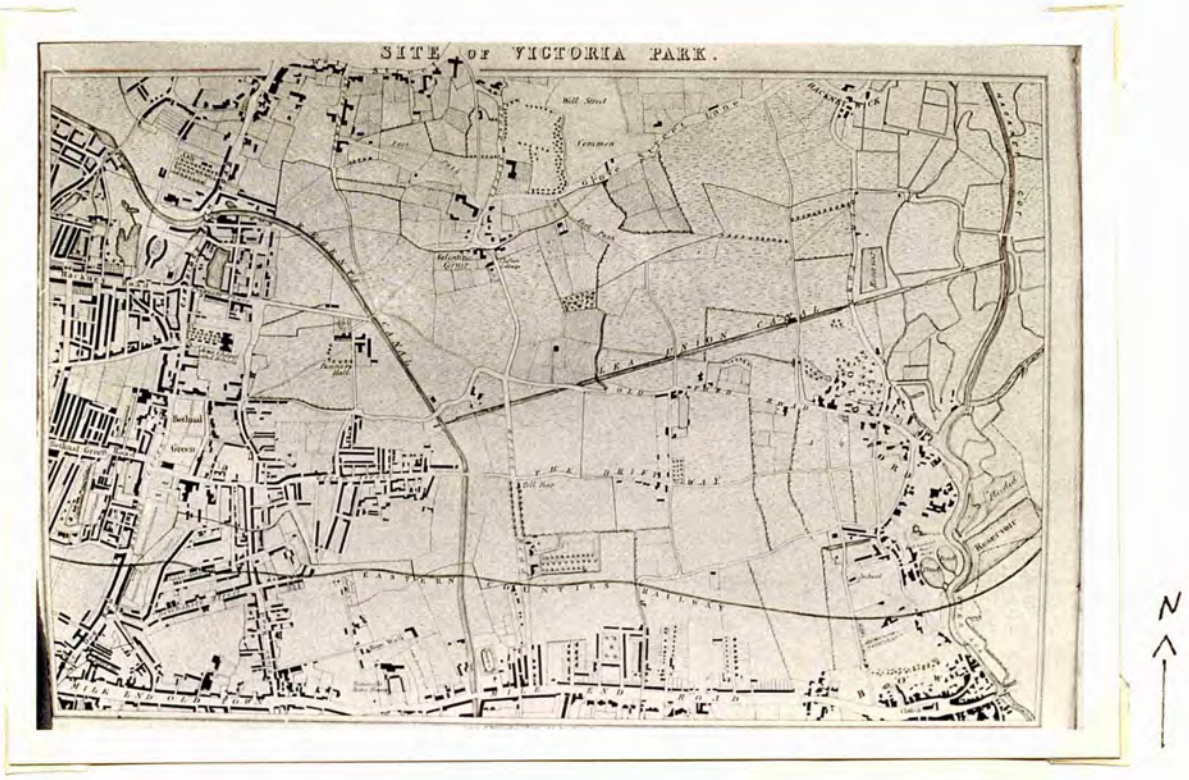
56a. Whitehall Yard.

56b. The southern end of Whitehall, looking south to Parliament Street and Westminster Abbey in the early 19th century.

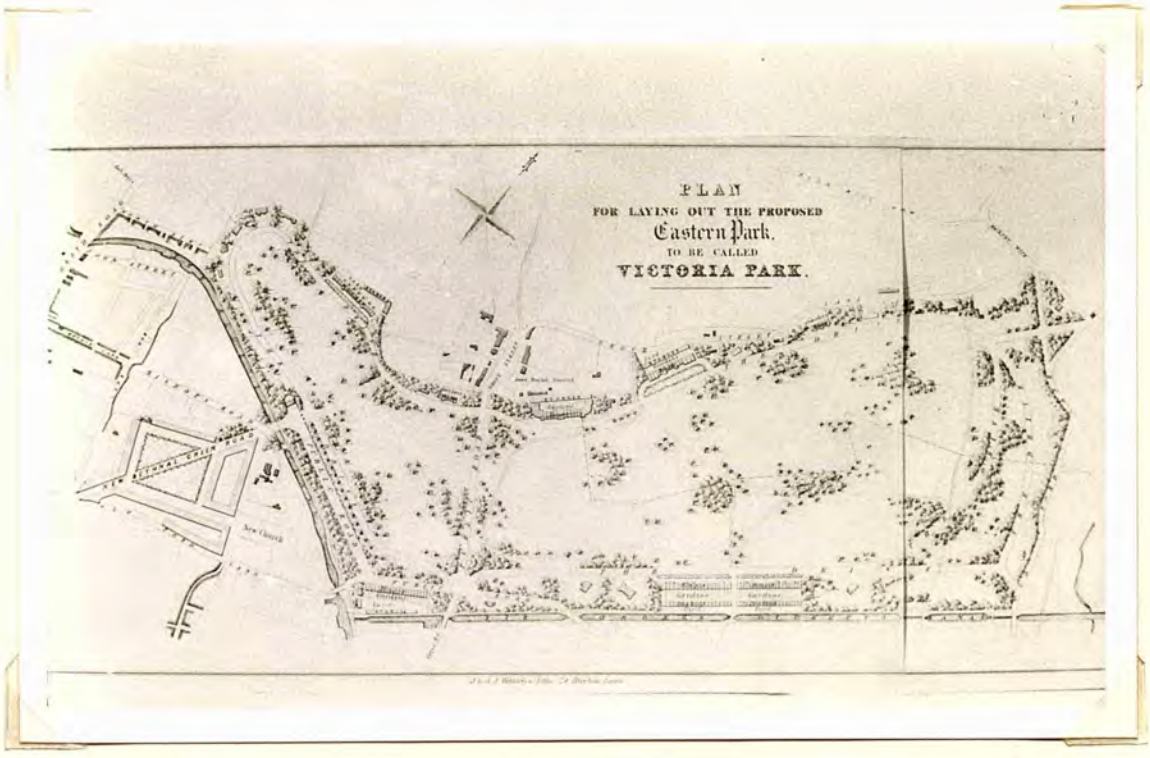


57. Plan for laying out Crown property on the Victoria Embankment, 1867-8.

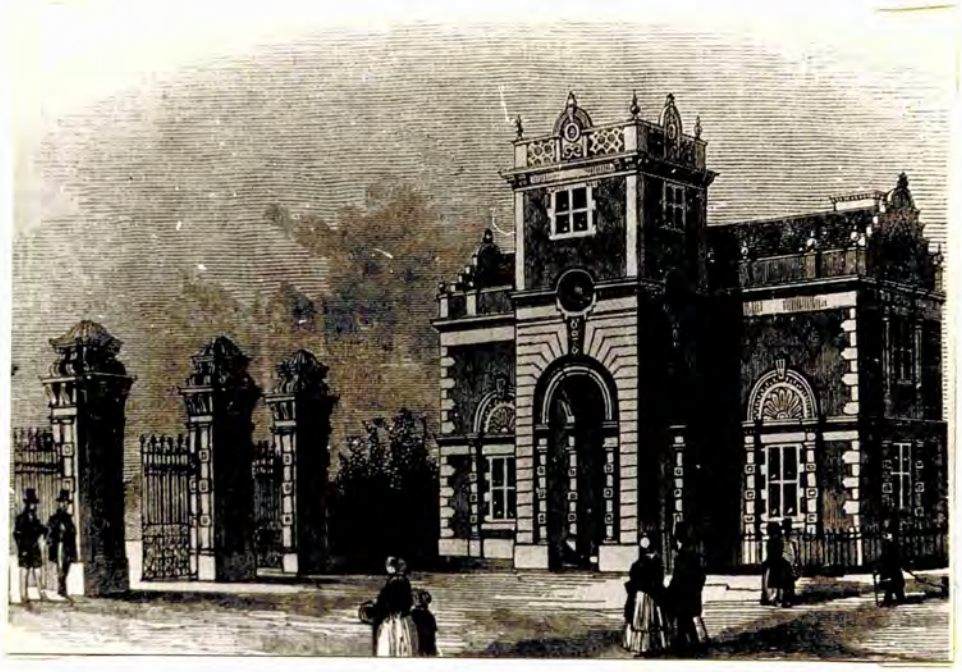
58. Thames Street and Windsor Castle from the west.



59a. Victoria Park, site, 1841.

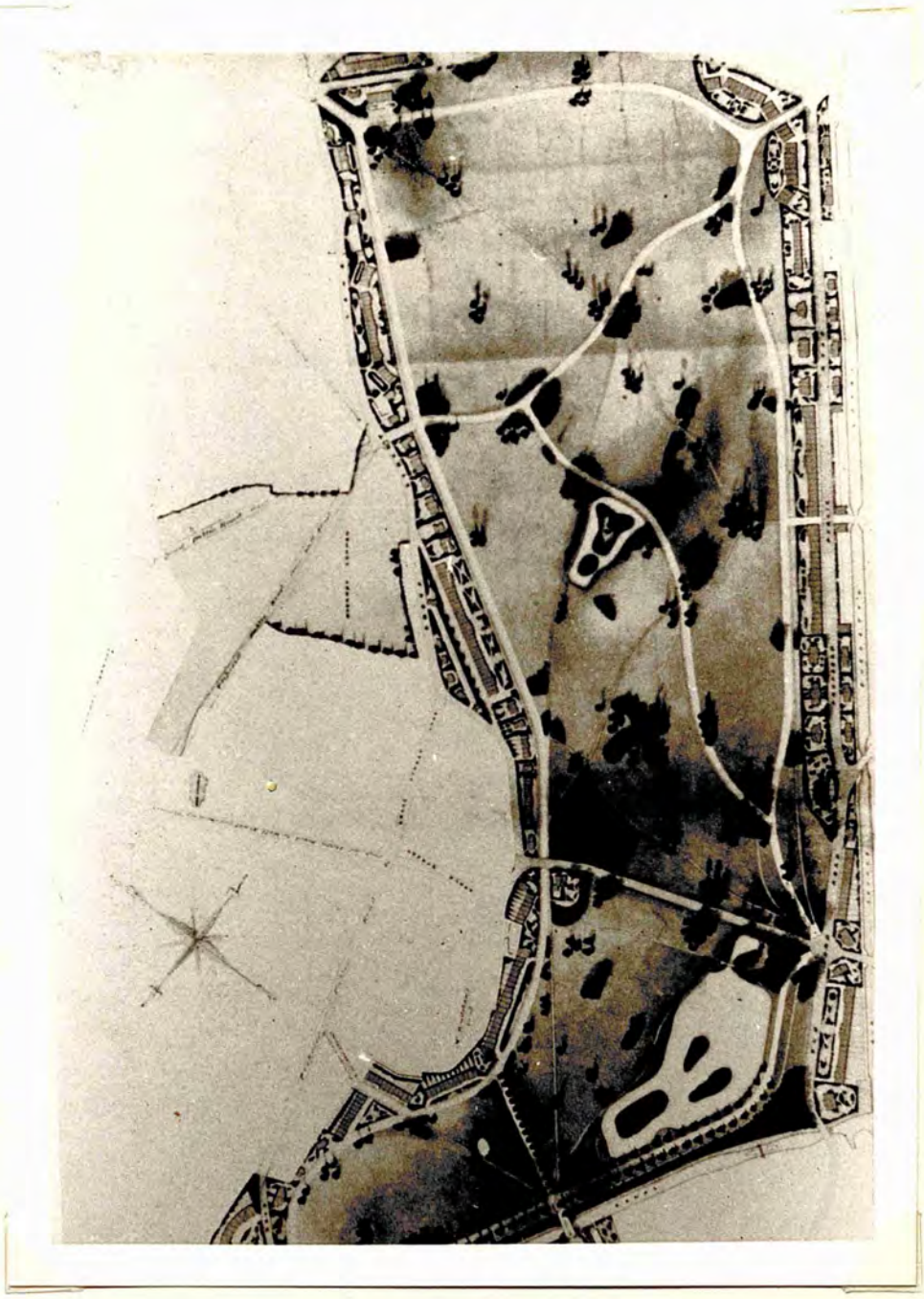


59b. Victoria Park, first design.



60a. Victoria Park, lodge.

60b. Victoria Park, gate piers.



61. Victoria Park, revised design, 1846.

62a. Victoria Park, carriage drive.

62b. Victoria Park, lake.

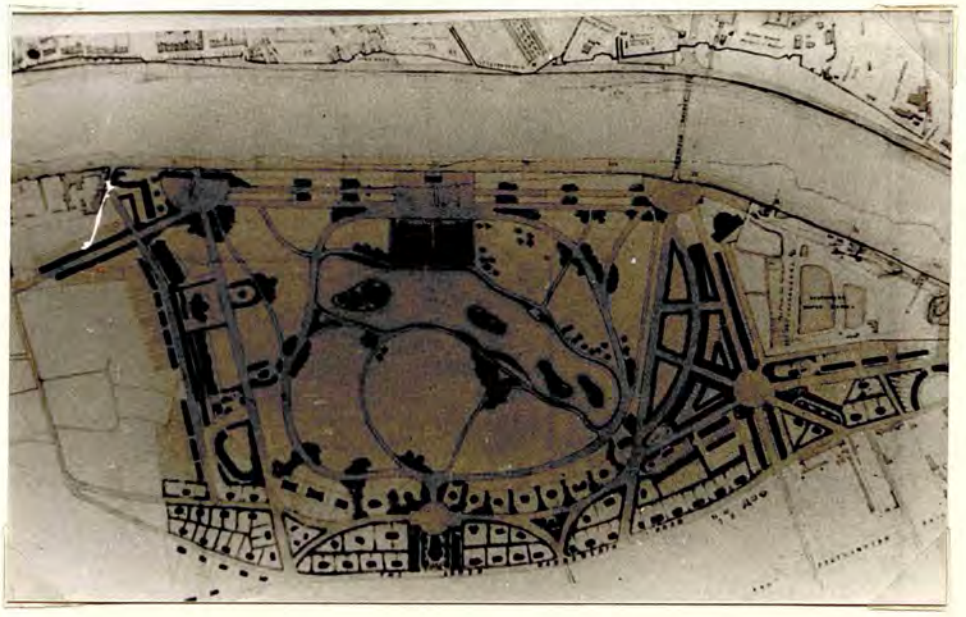
63a. Victoria Park, arcade.

63b. Victoria Park, showing houses on north side.

64a. Approach Road, Victoria Park.

64b. Gore Road, Victoria Park.

65a. Battersea Park, site, 1833.



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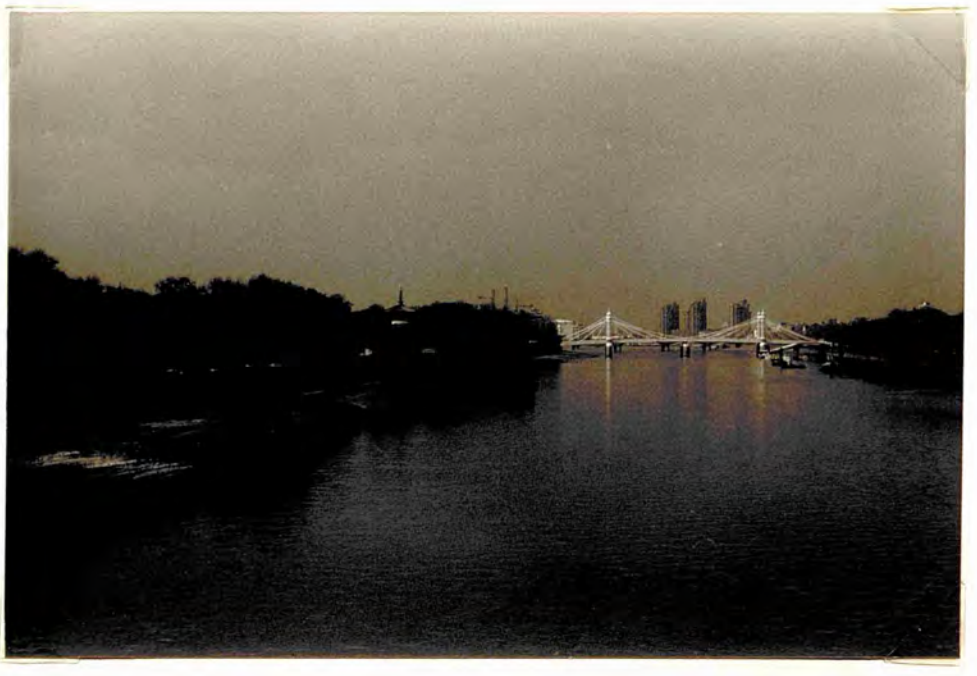
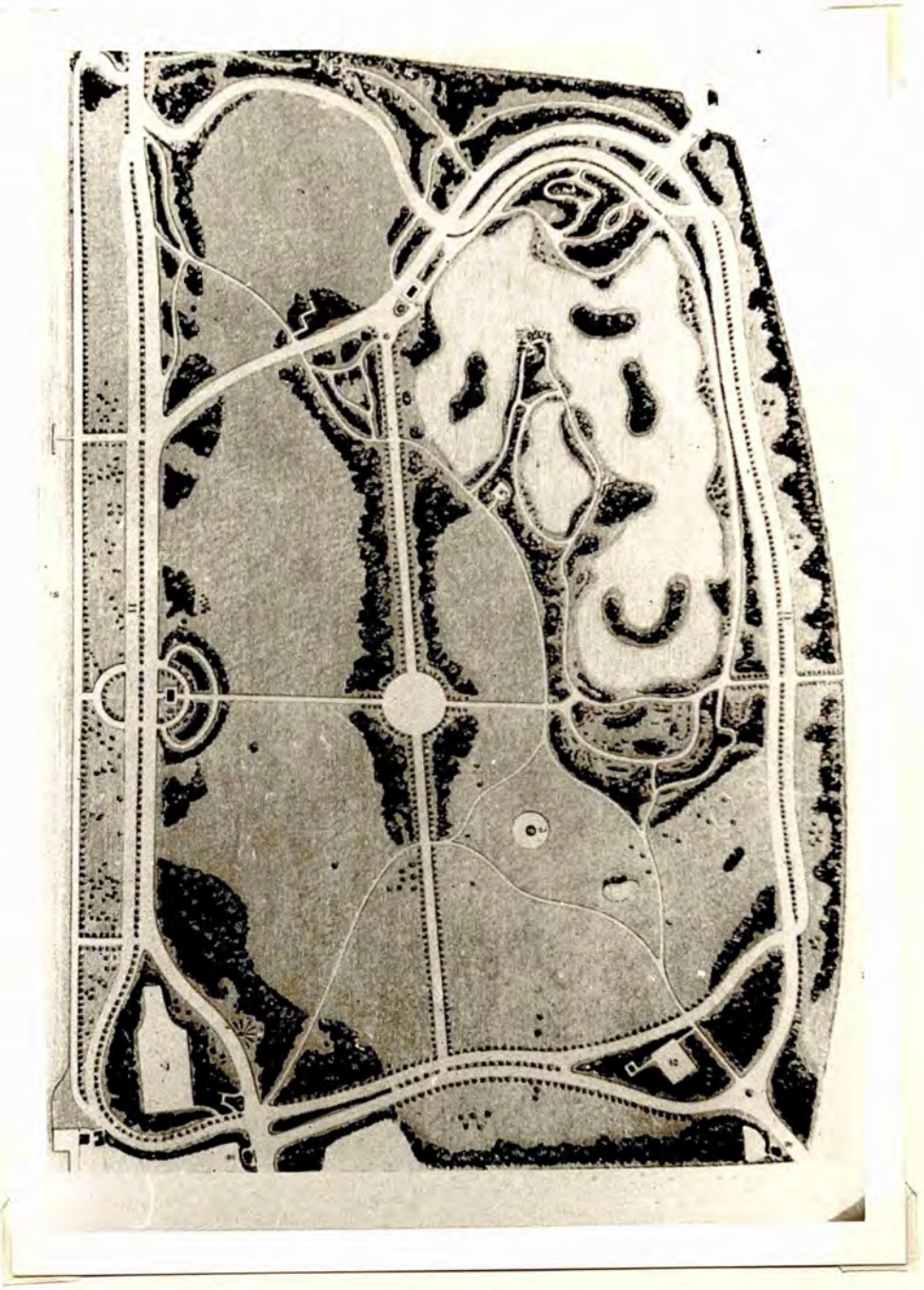
65b. Battersea Park, first design 1845.

66. Battersea Park, design for layout of park and surrounding areas in connection with proposed removal of Great Exhibition building, 1851.



67a. Battersea Park, river frontage, looking west from Chelsea Bridge.

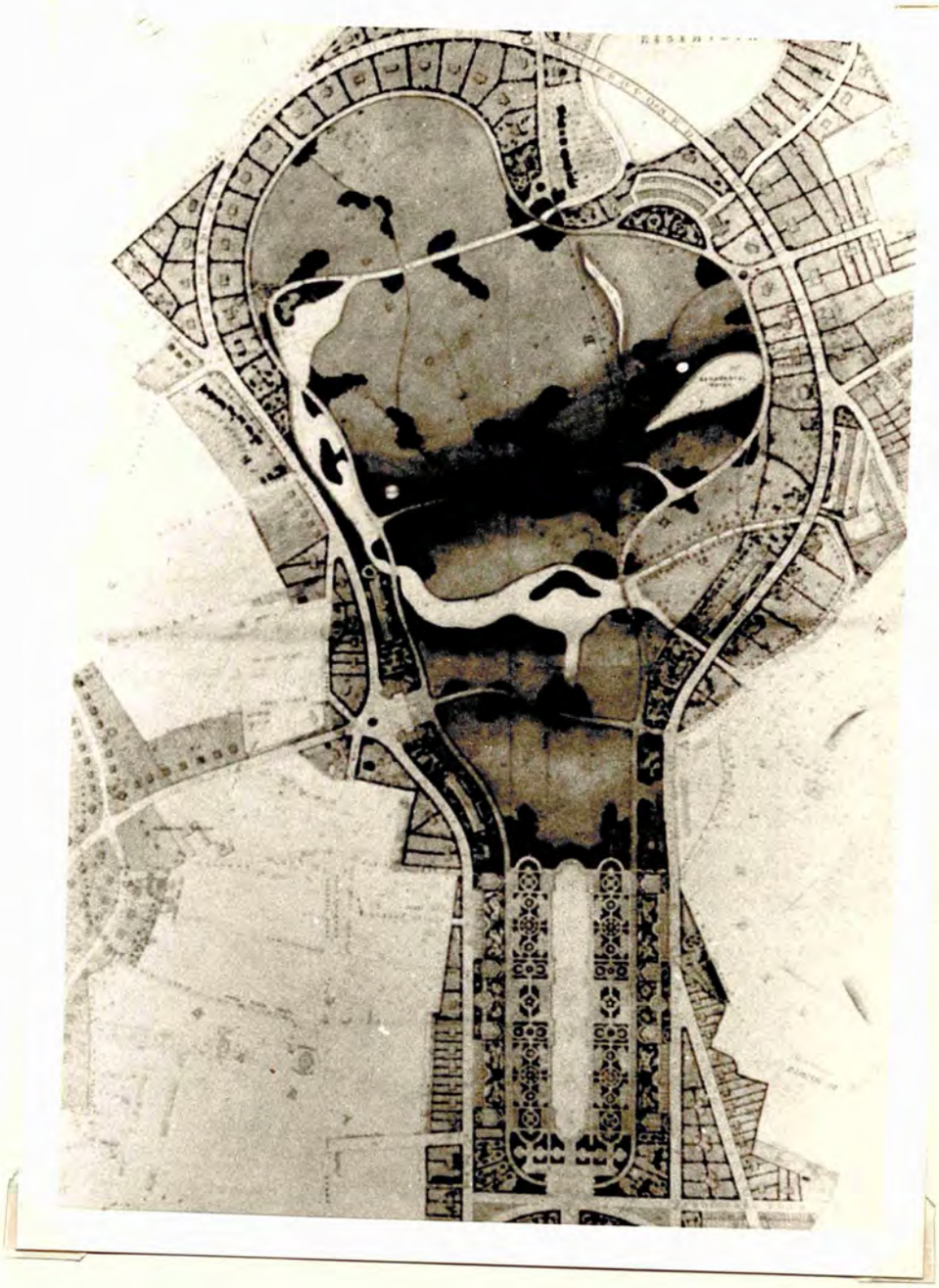
67b. Queenstown Road, looking north to Chelsea Bridge.



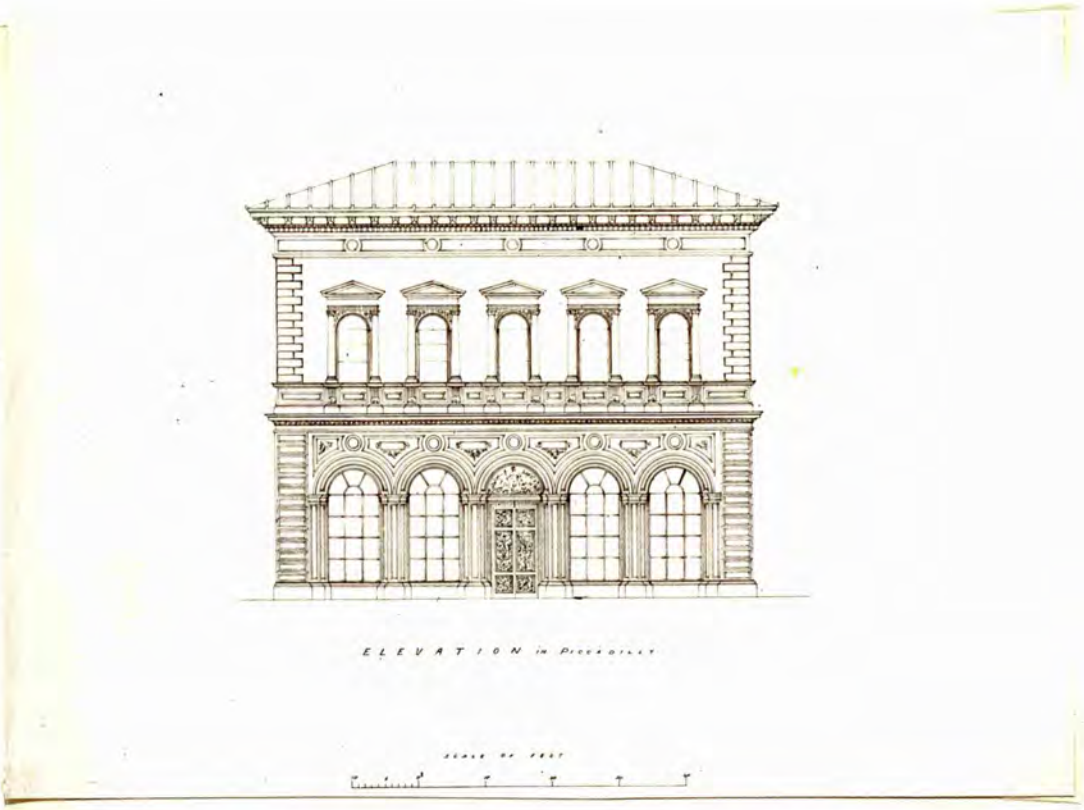
68. Battersea Park, revised design c.1856.

69a. Battersea Park, lake and island.

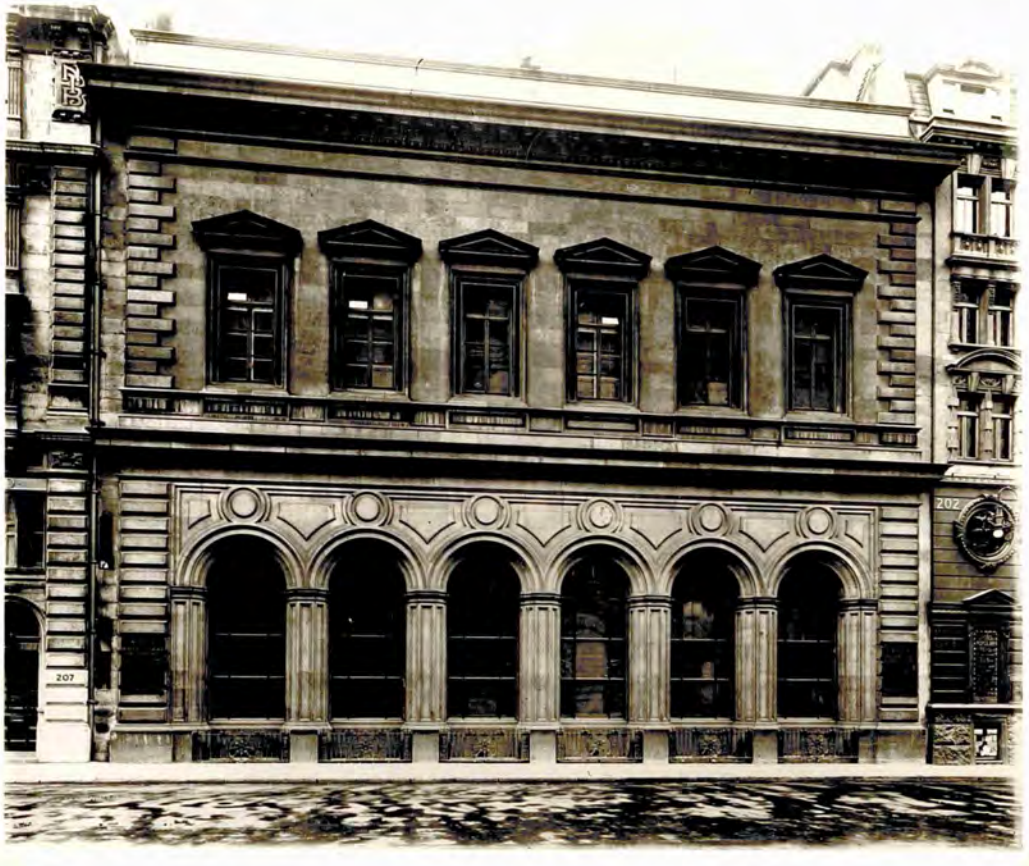
69b. Battersea Park, lake looking east.



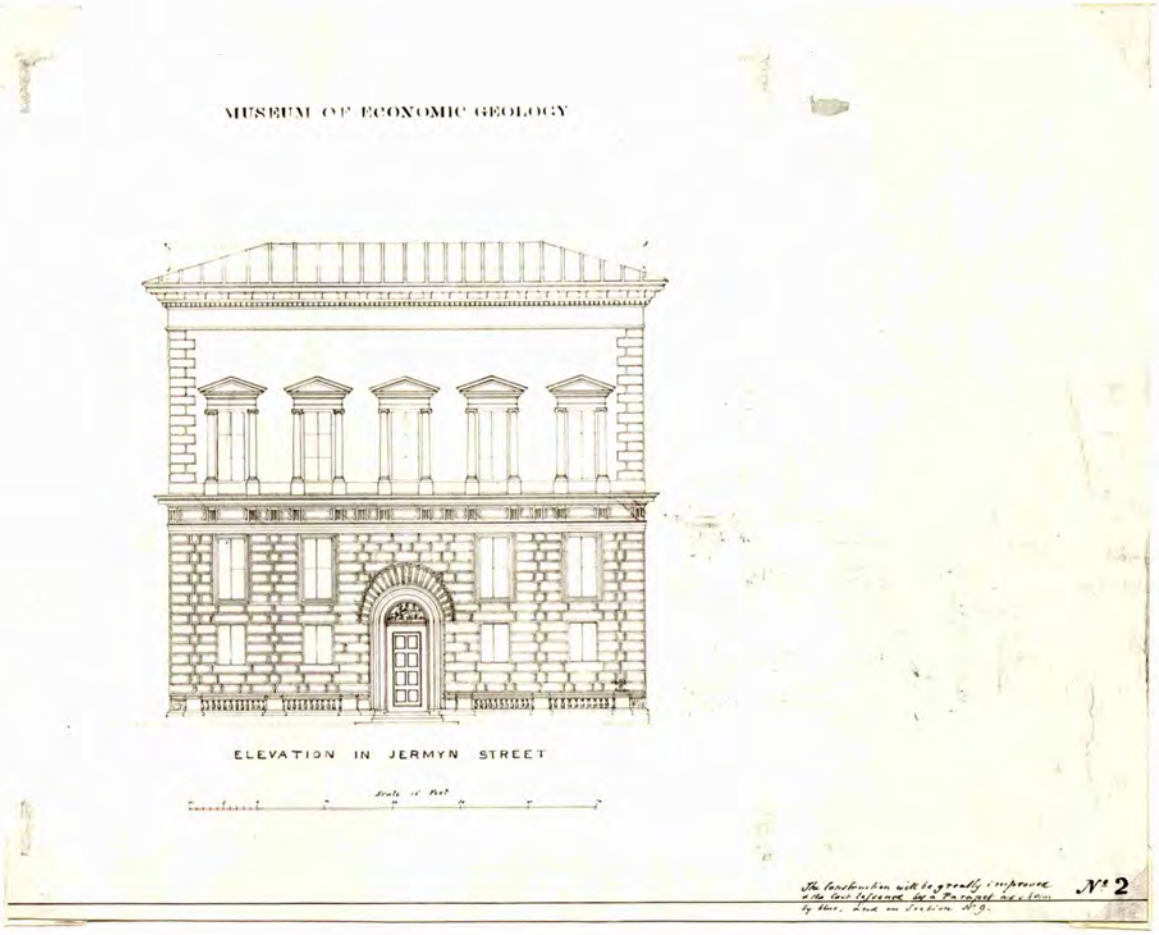
70. Design for "Albert Park", 1851.



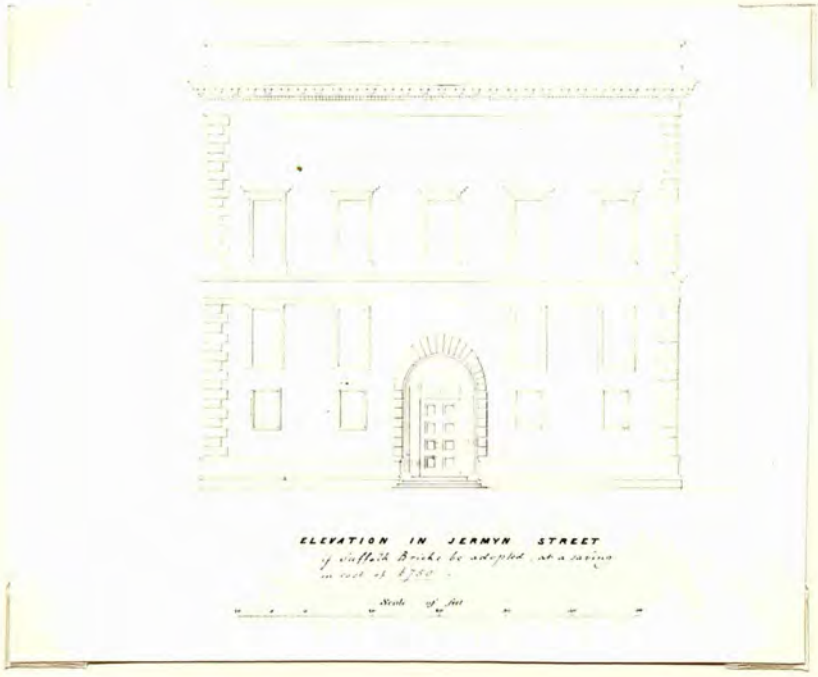
71a. Museum of Economic Geology, Piccadilly front, proposed elevation 1846.



71b. Museum of Economic Geology, Piccadilly front, as executed.

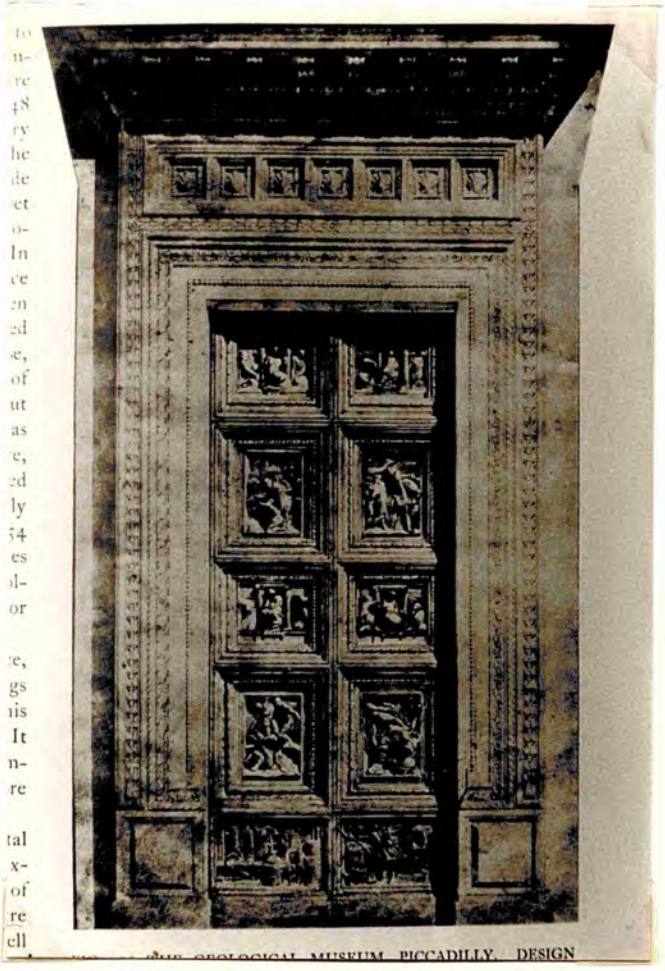


72a. Museum of Economic Geology, Jermyn Street front, proposed elevation 1846.

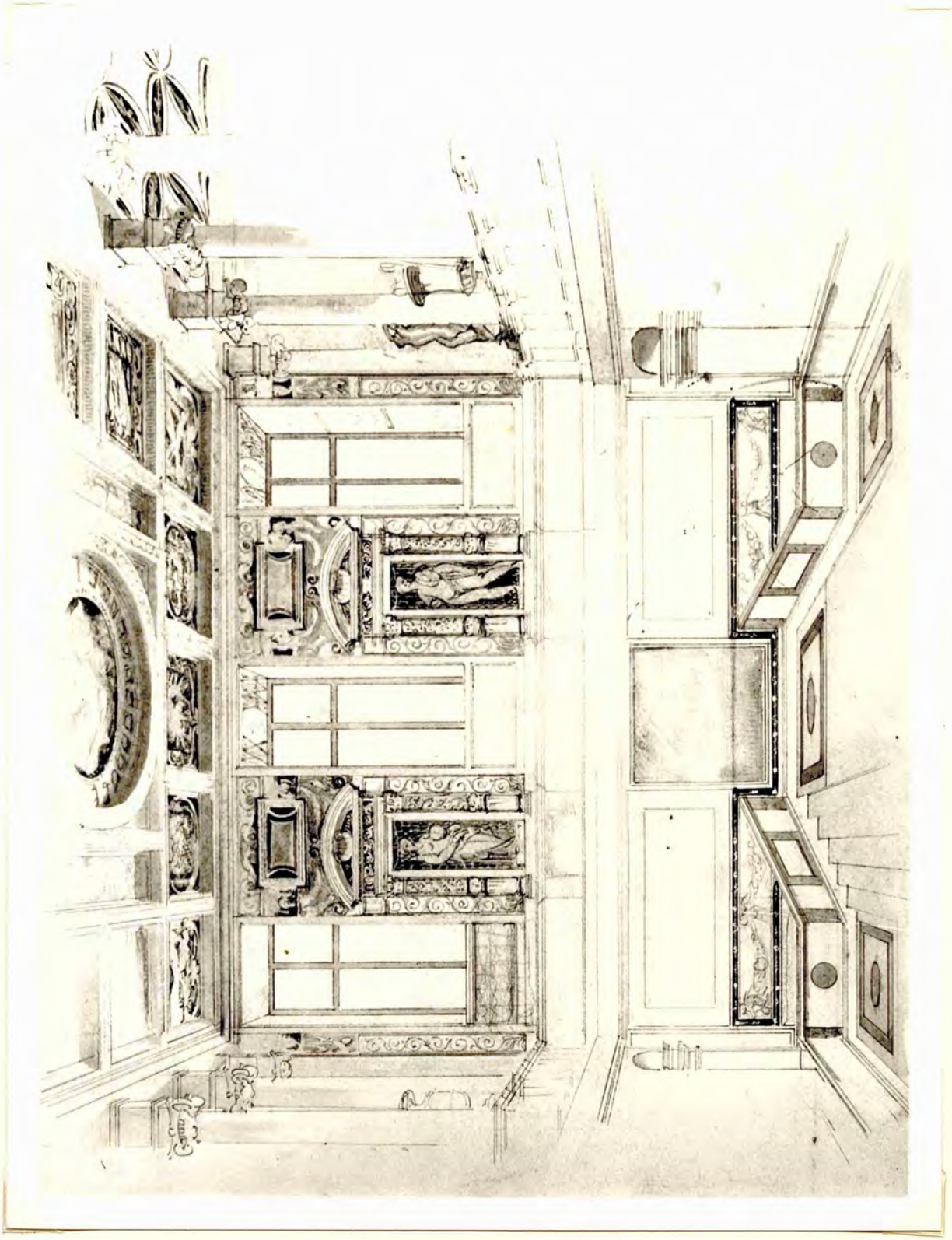


72b. Museum of Economic Geology, Jermyn Street front, alternative treatment, 1846.

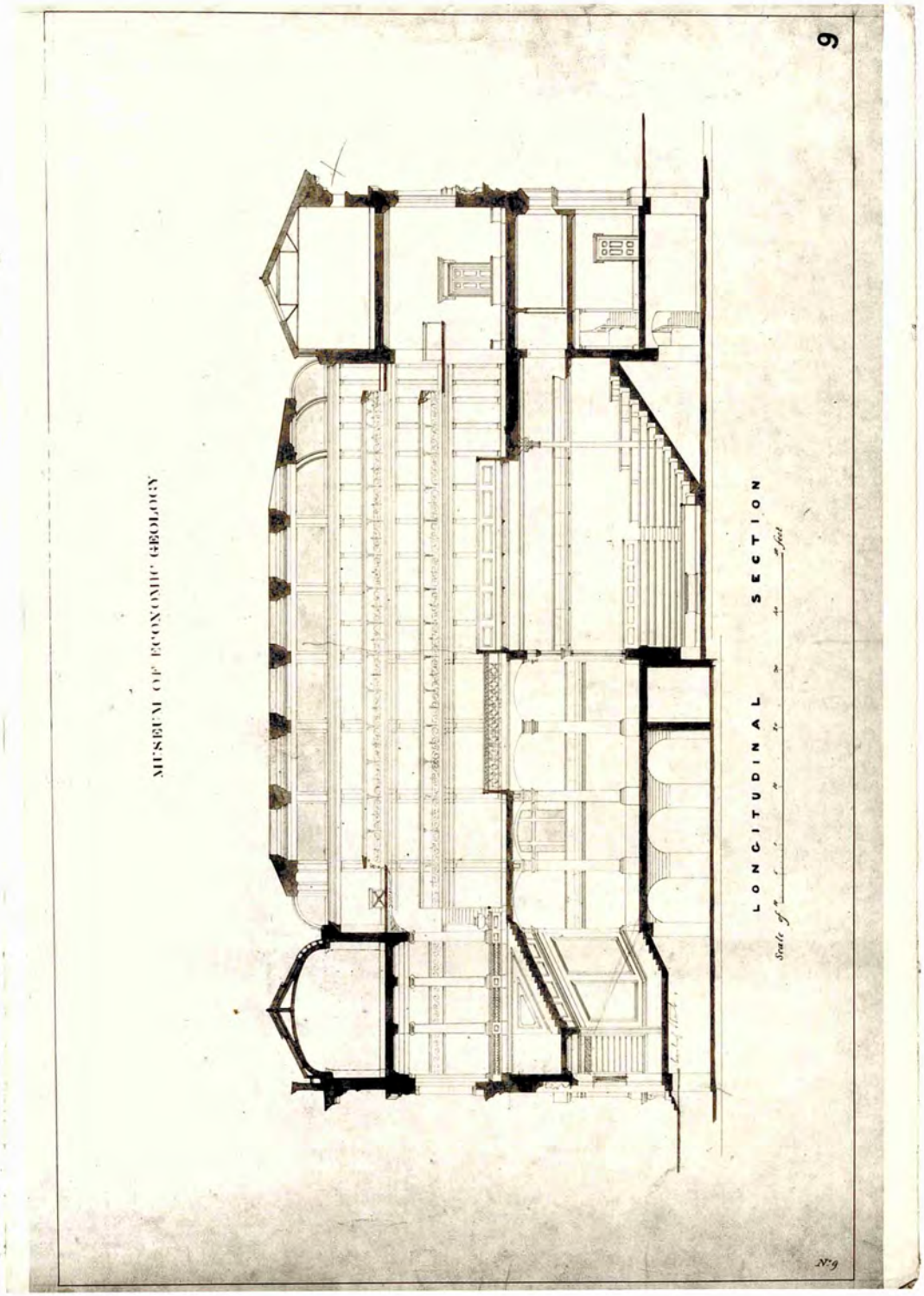
73. Museum of Economic Geology, Jermyn Street front, as executed.



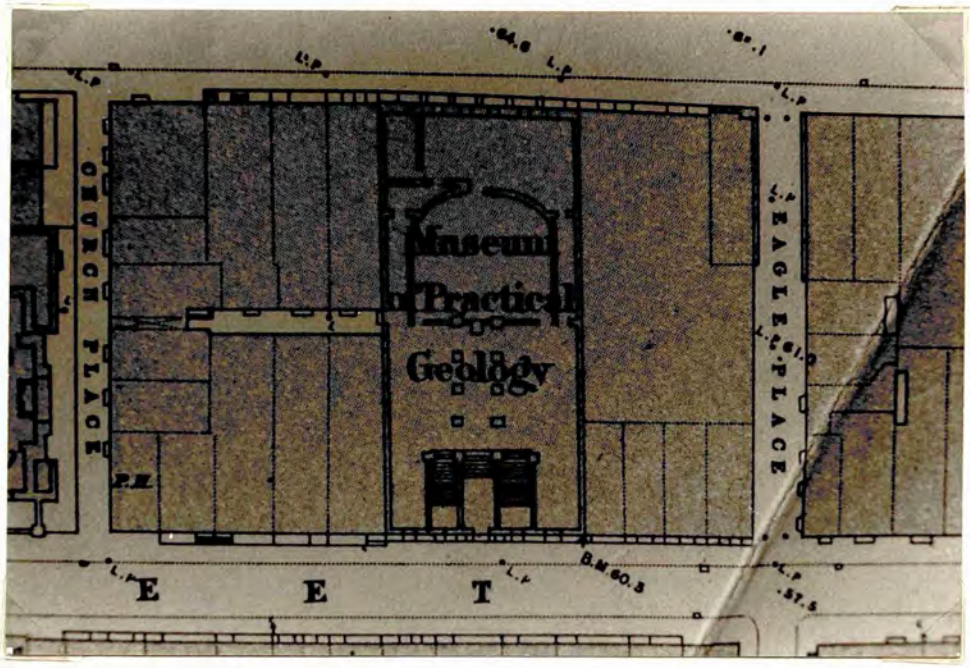
74. Museum of Economic Geology, Jermyn Street front, design for entrance doors by Alfred Stevens.



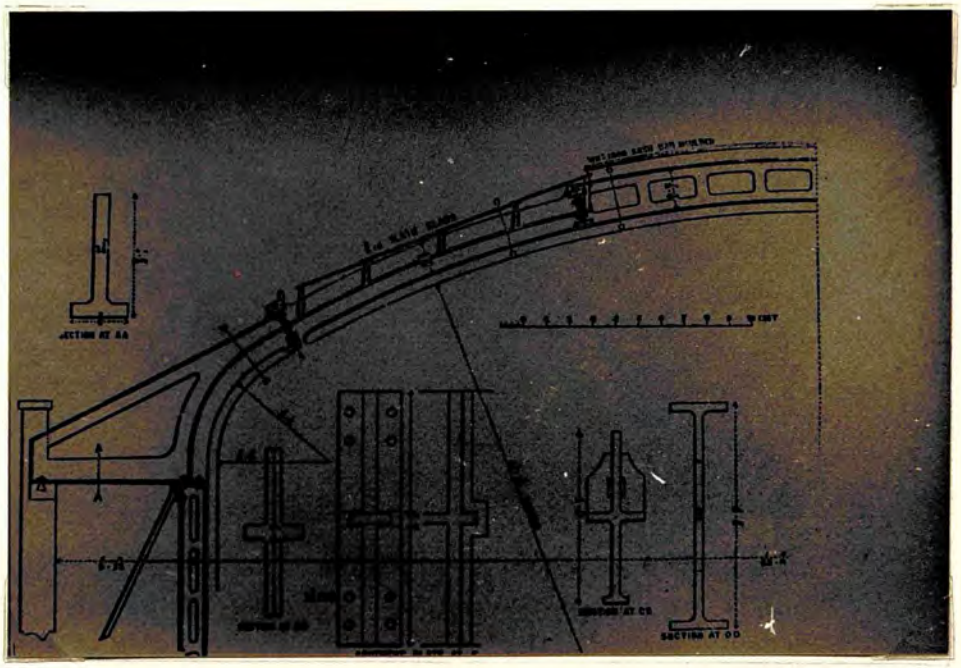
75. Museum of Economic Geology, entrance hall, design for decoration by Alfred Stevens.



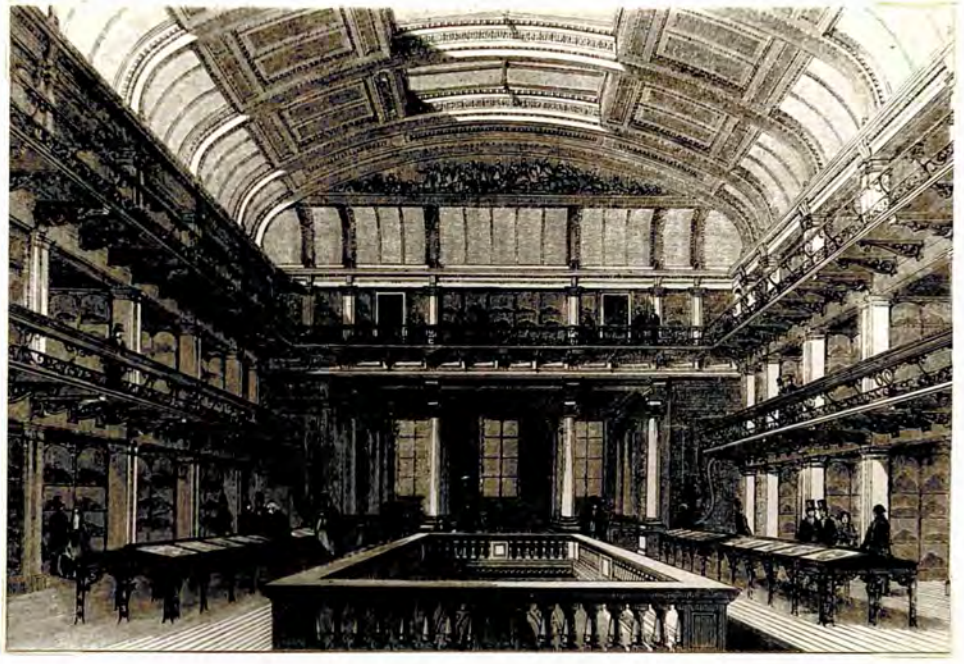
76. Museum of Economic Geology, cross-section.



77a. Museum of Economic Geology, ground plan, 1869.



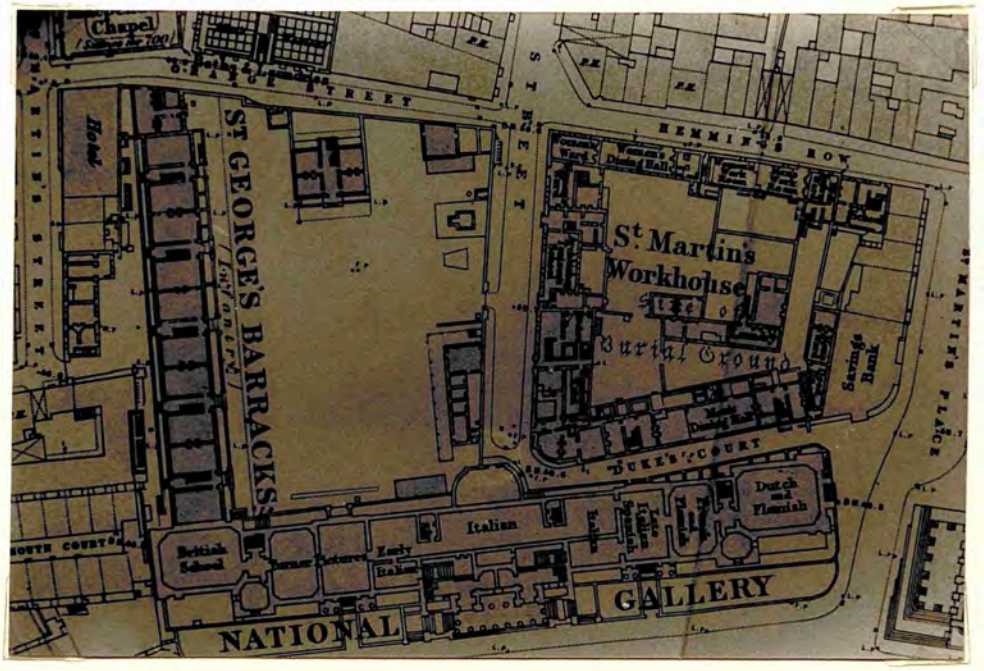
77b. Museum of Economic Geology, detail of roof construction, 1848.



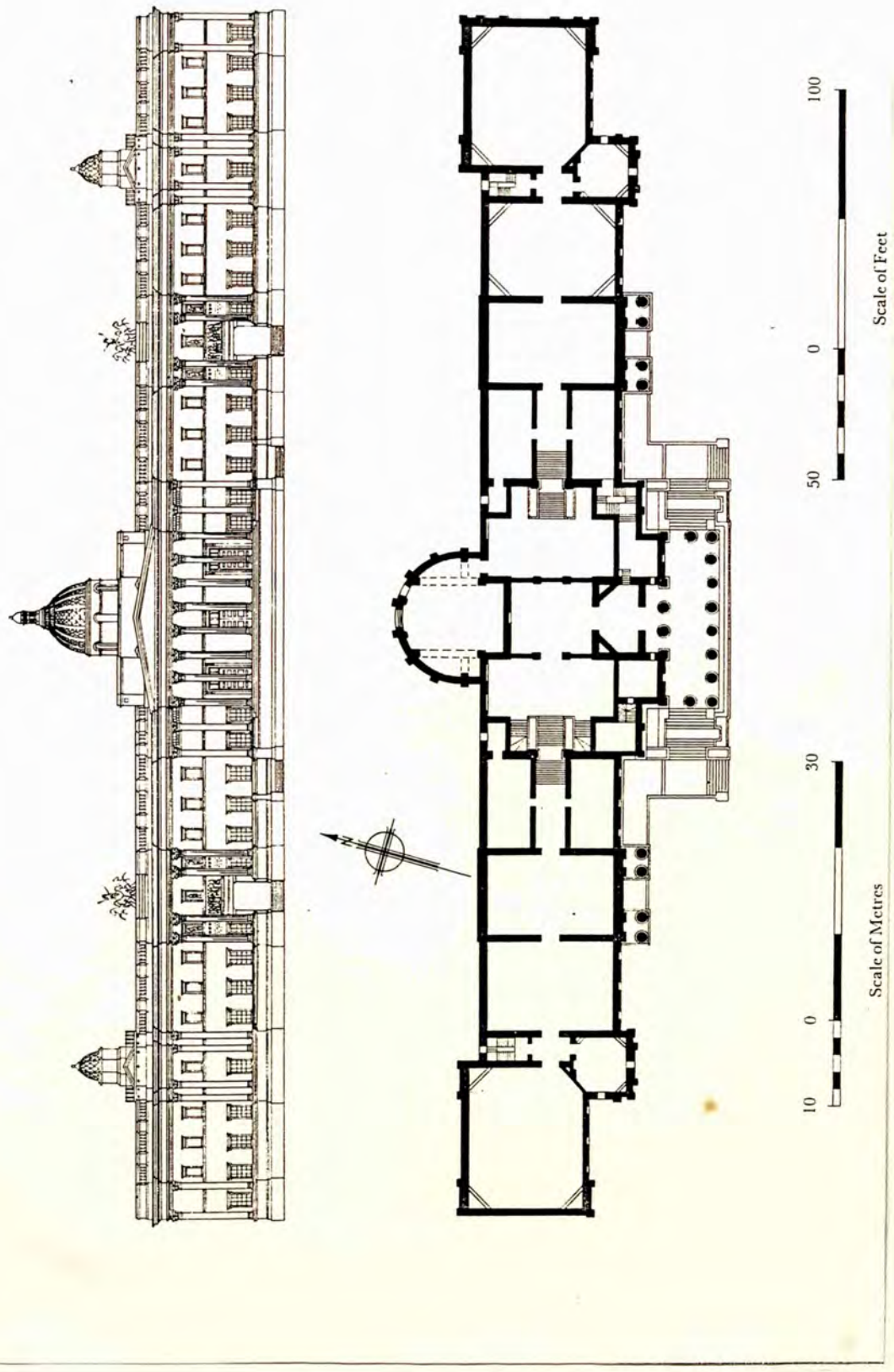
78a. Museum of Economic Geology, main gallery looking south, in 1848.

78b. Museum of Economic Geology, main gallery looking north, c.1930.

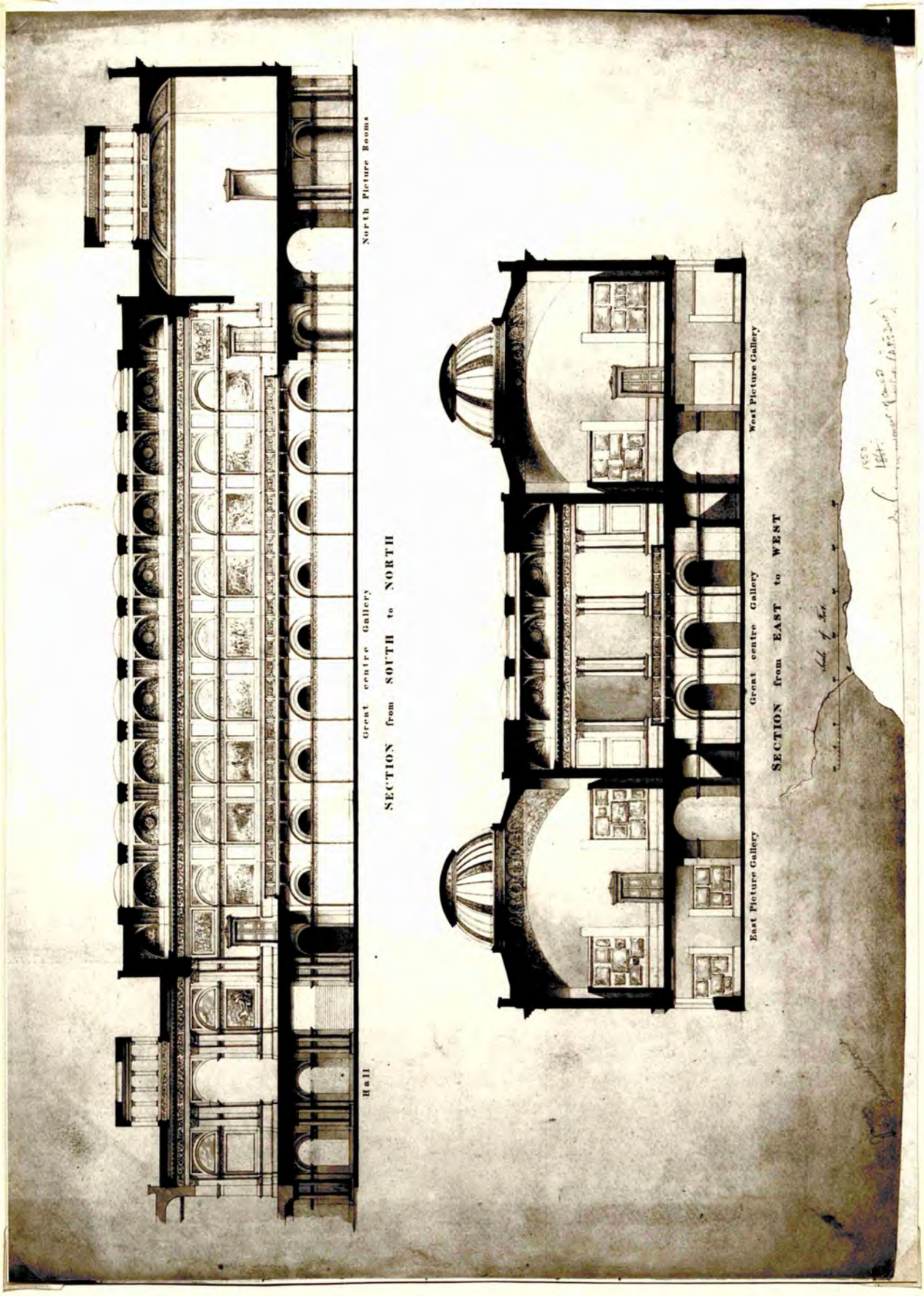
79a. The National Gallery.



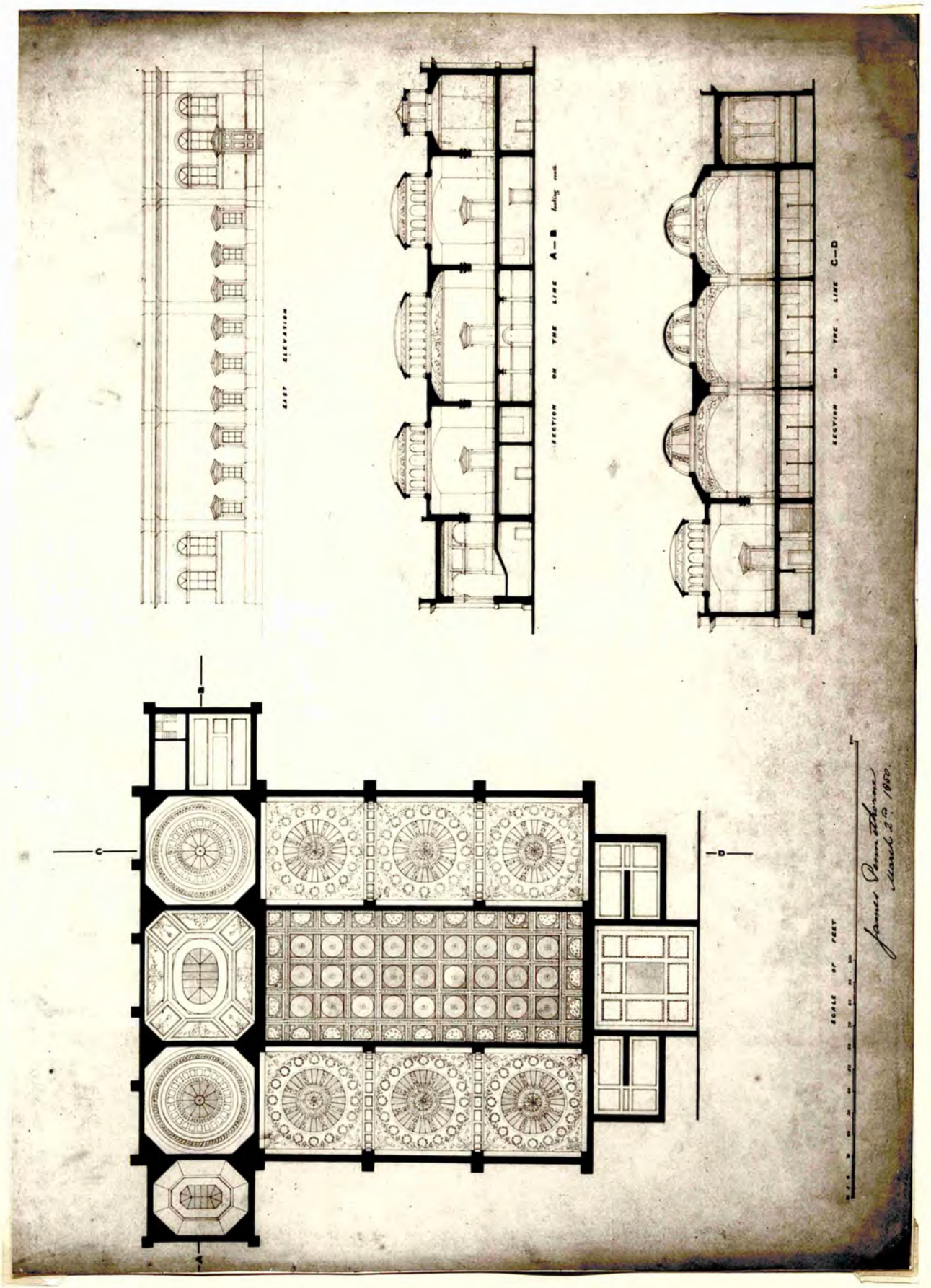
79b. Plan of the National Gallery and its surroundings, 1869.



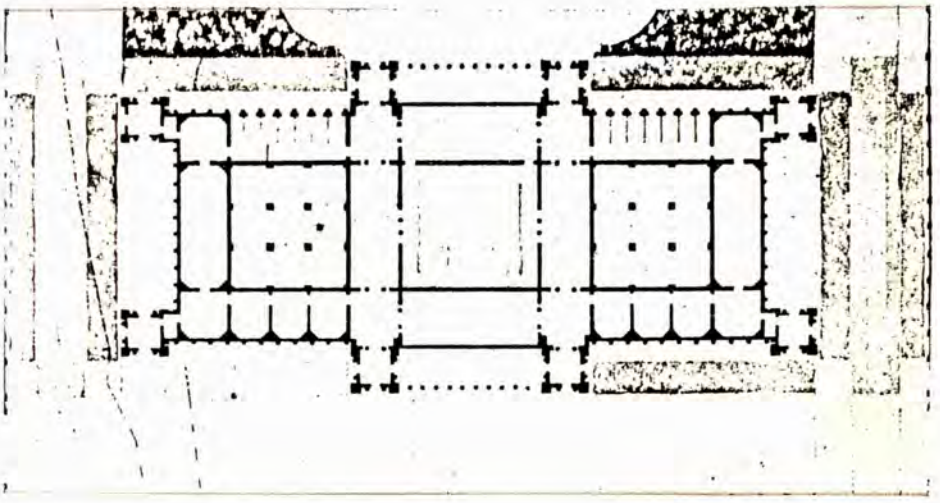
80. The National Gallery
elevation and ground plan (1834).



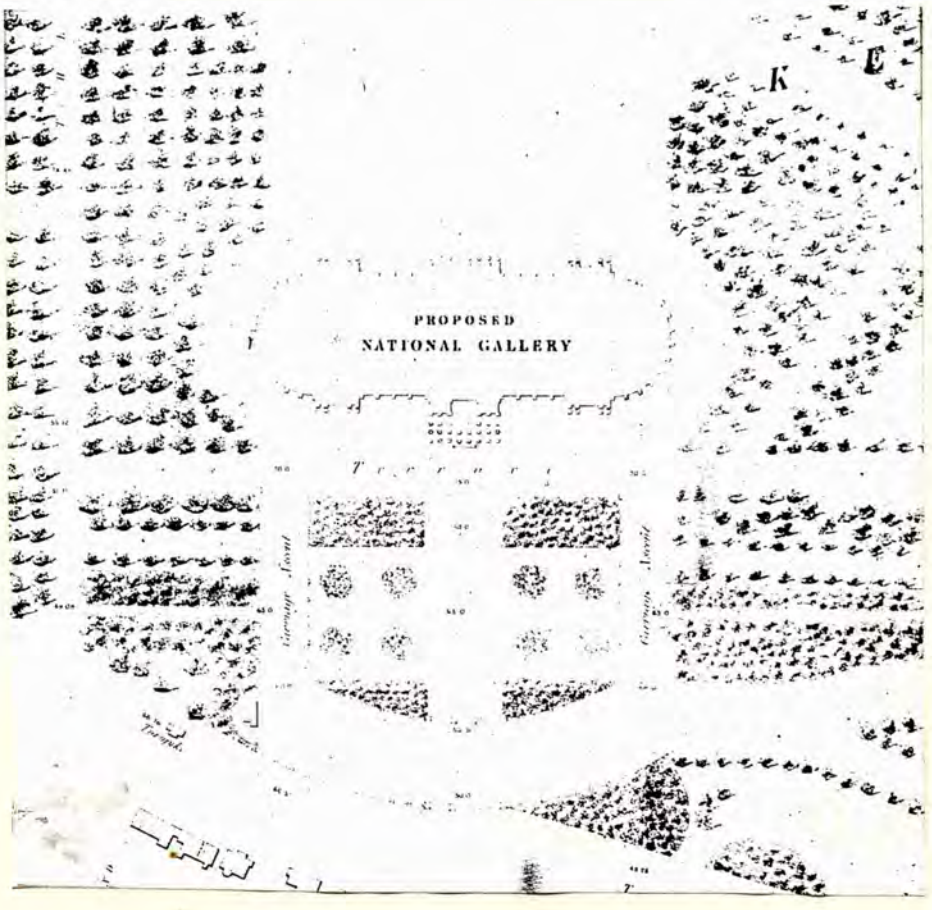
81. Design for a northern extension to the National Gallery, cross sections, 1850.



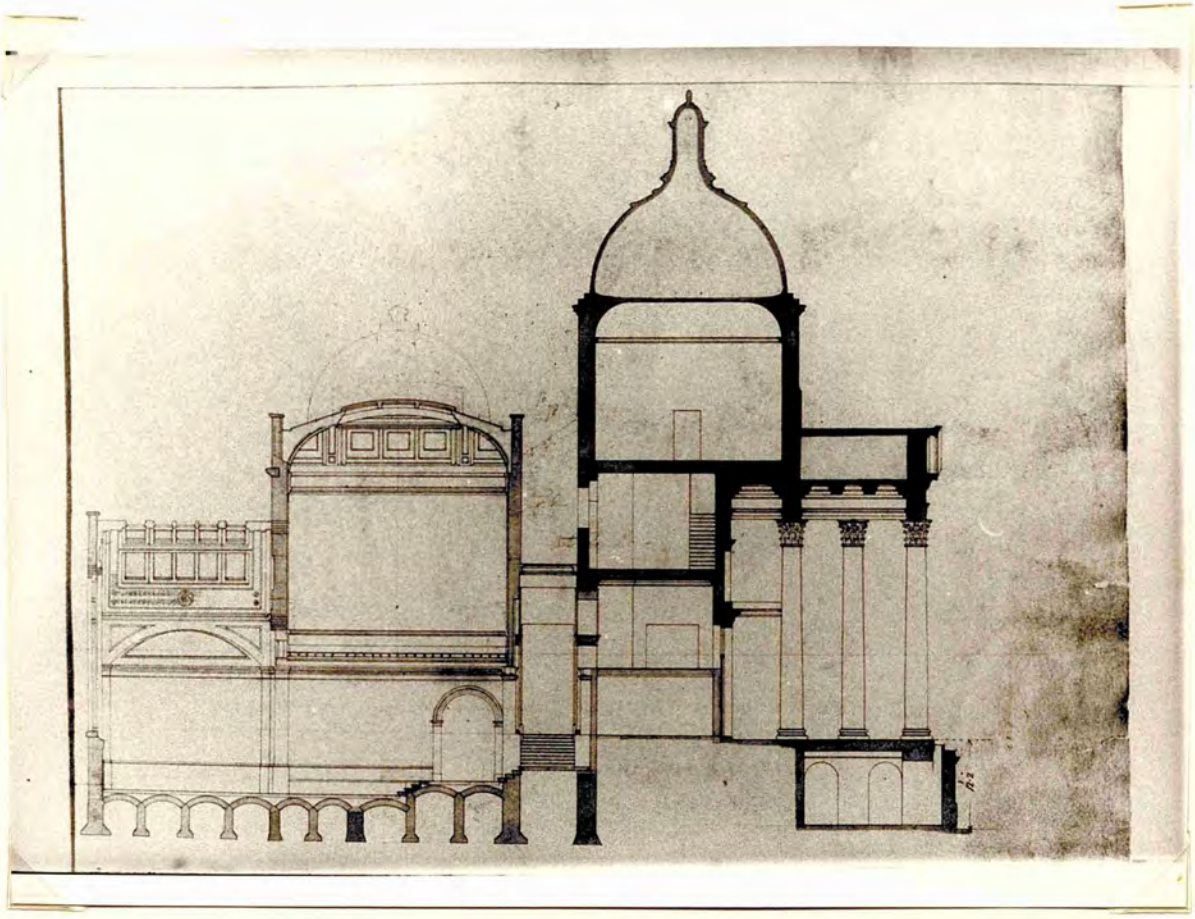
82. Proposed National Gallery extension, ceiling plan, cross section and elevation.



83a. Plan of proposed National Gallery on the South Kensington estate.



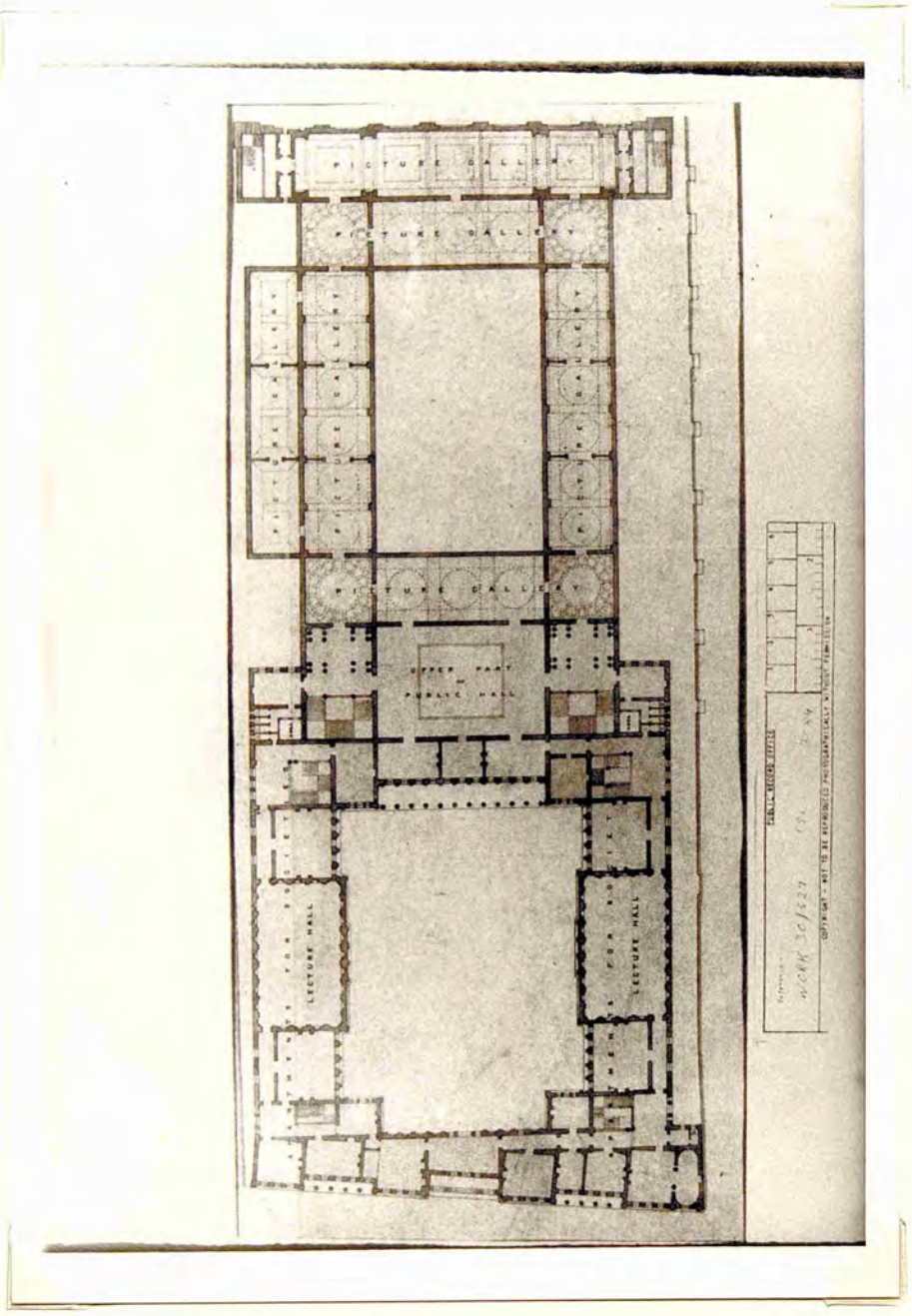
83b. Proposal for National Gallery in Kensington Gardens 1852.



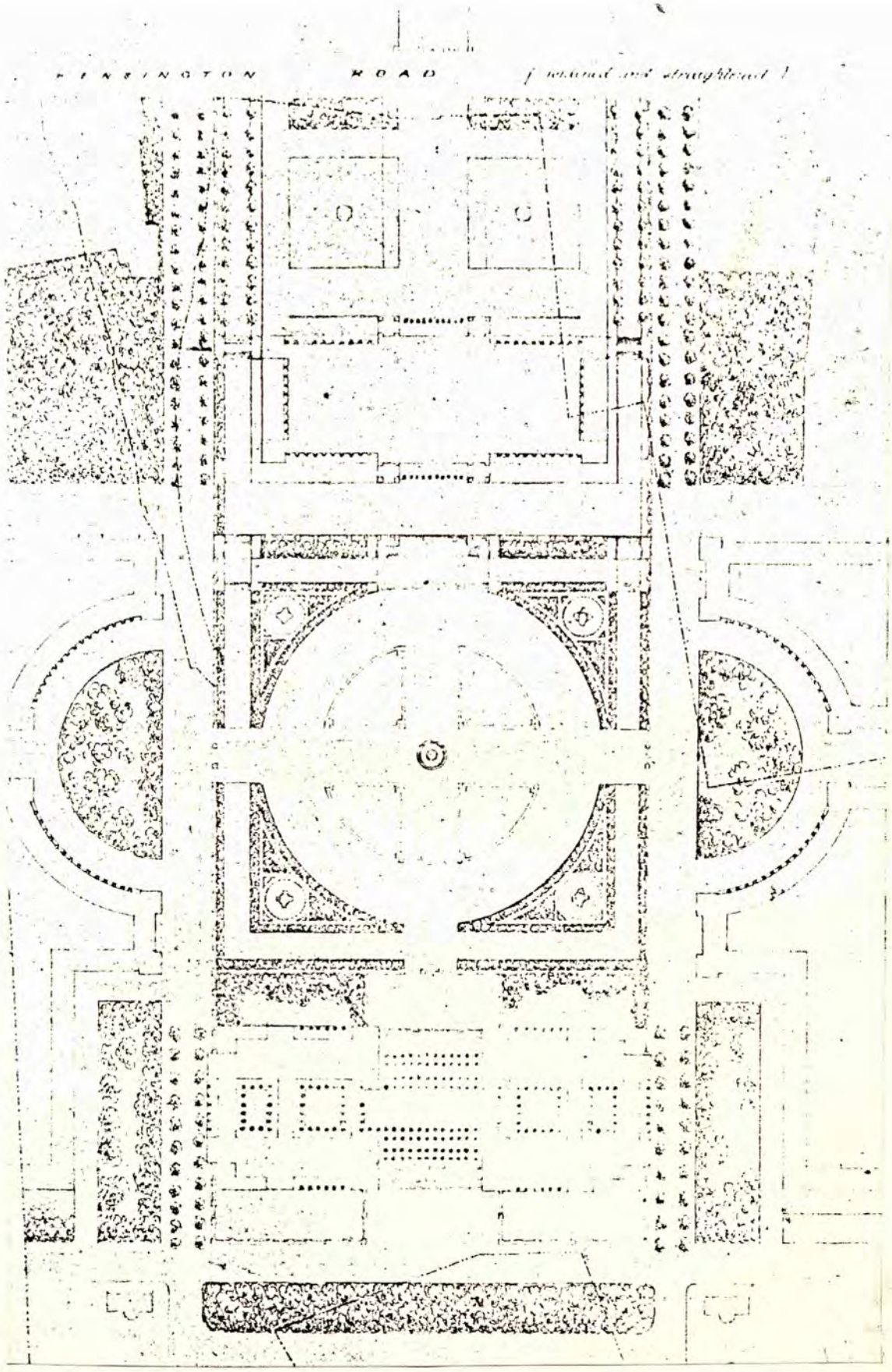
84. National Gallery, cross section through new gallery and sculpture room.

85. National Gallery, new picture gallery (1861).

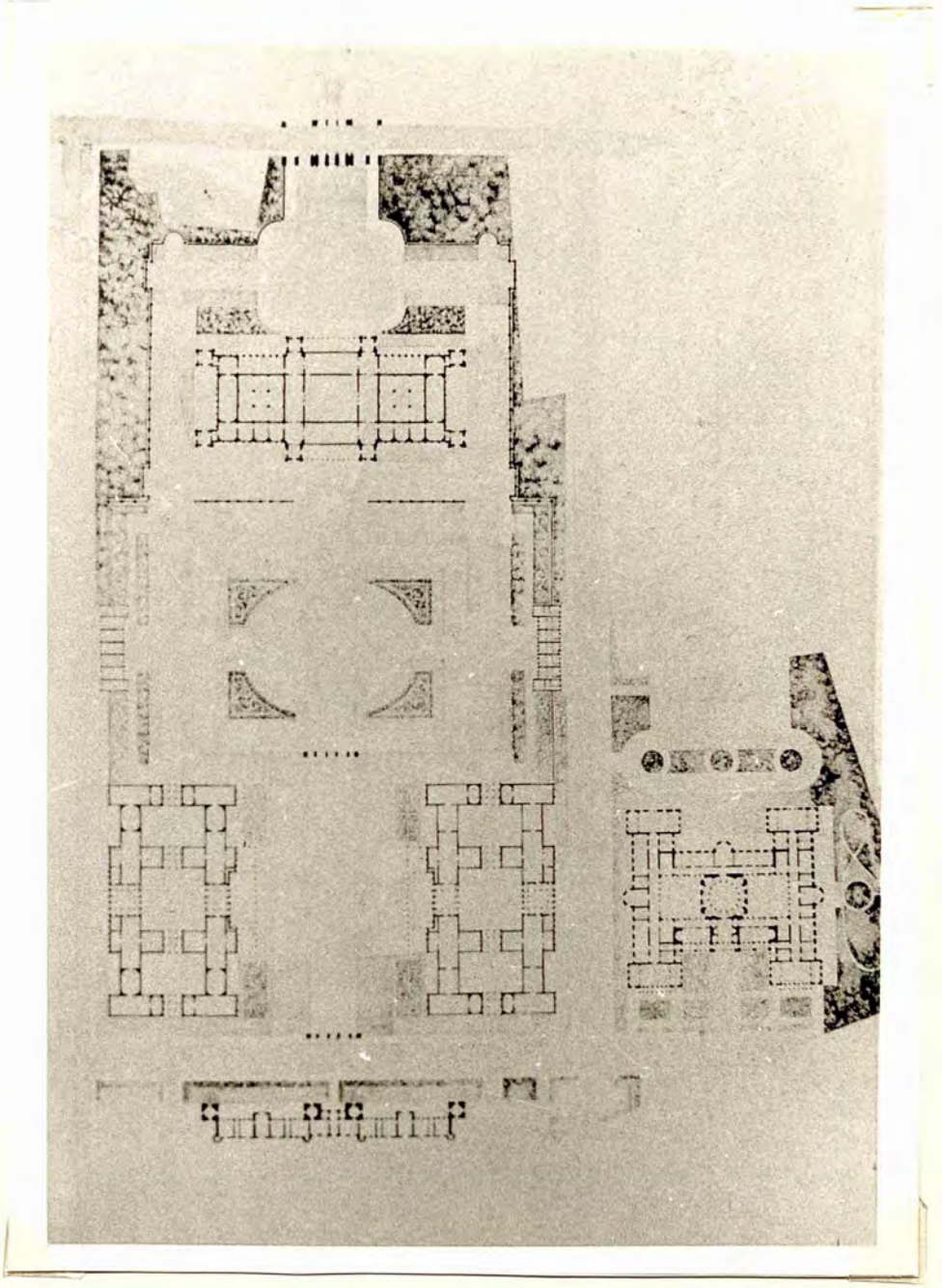
86. Proposed new picture gallery, National Gallery, Trafalgar Square, c.1861.



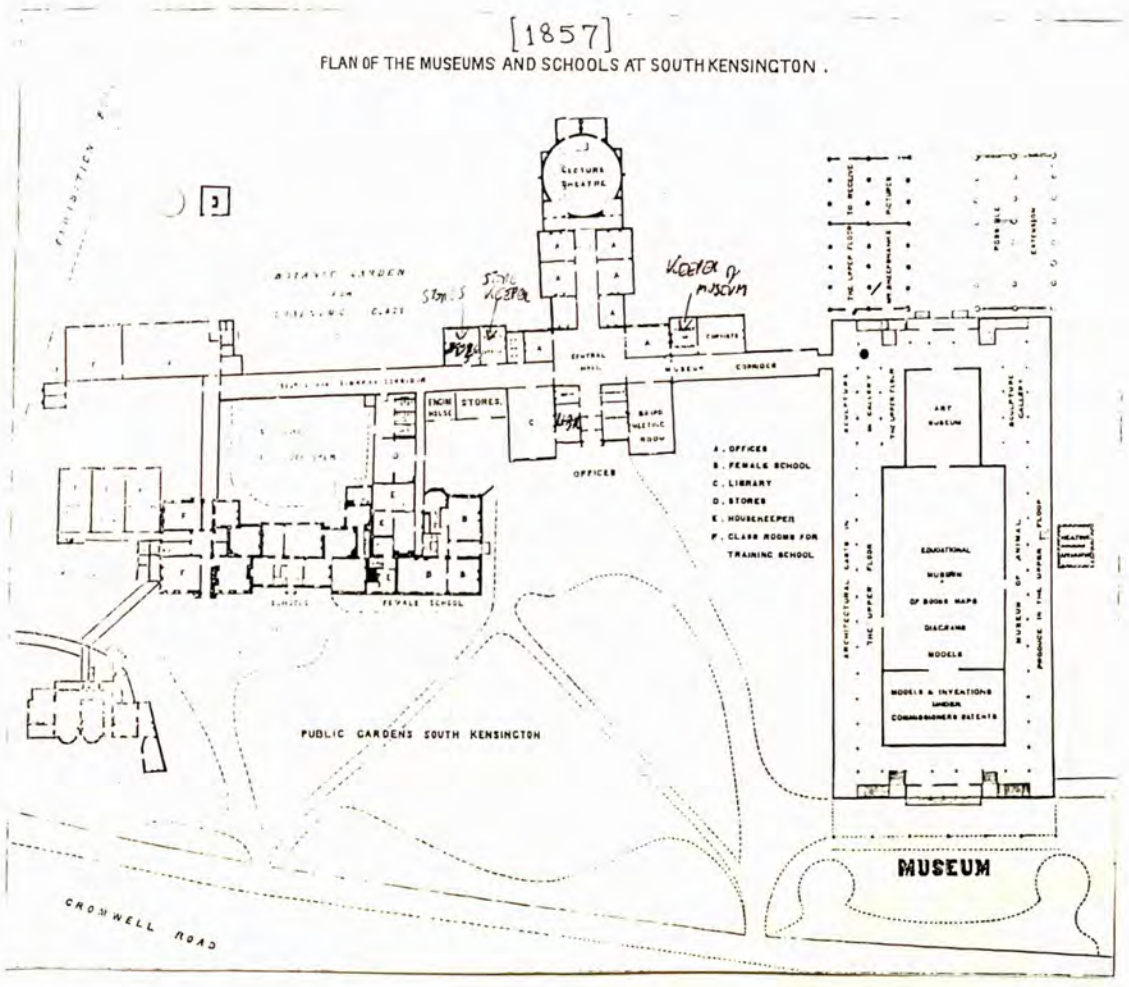
87. Proposed National Gallery and apartments for learned societies, Burlington, House, first floor plan, 1861.



88. Plan for layout of the South Kensington estate, 1853.

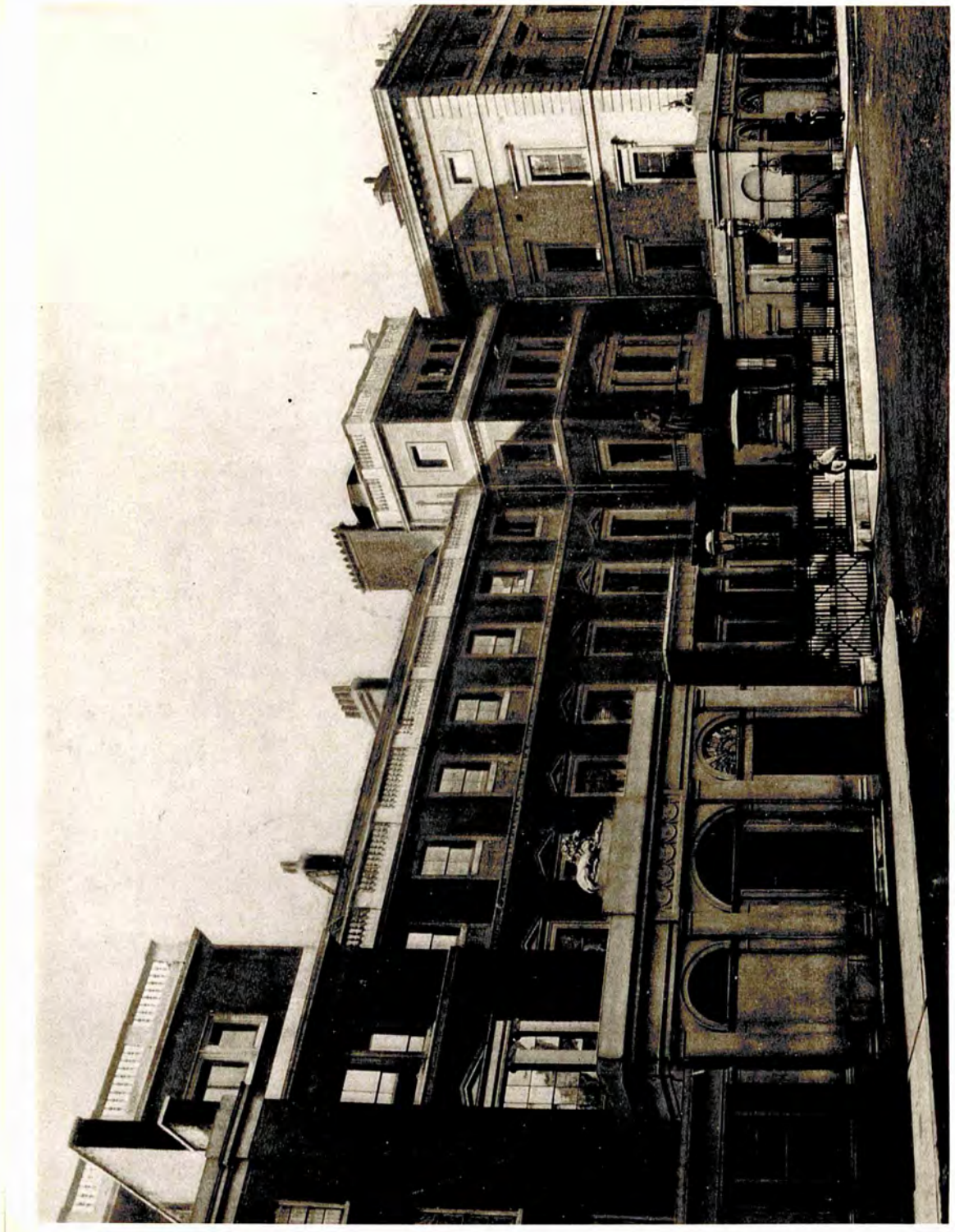


89. Alternative plan for layout of the South Kensington estate, 1853.



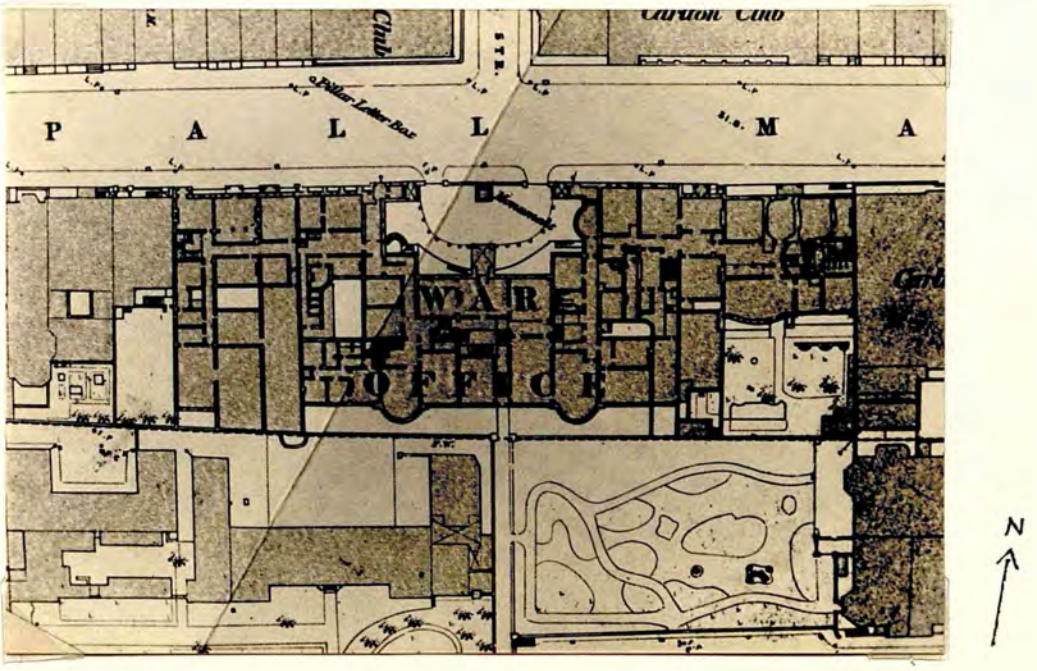
90a. Plan of the South Kensington Museum, showing Pennethorne's "junction building", 1857.

90b. Pennethorne's "junction building" in 1863.



91. The War Office, Pall Mall (former Ordnance Office), showing Pennethorne's extension on the right, c.1895.

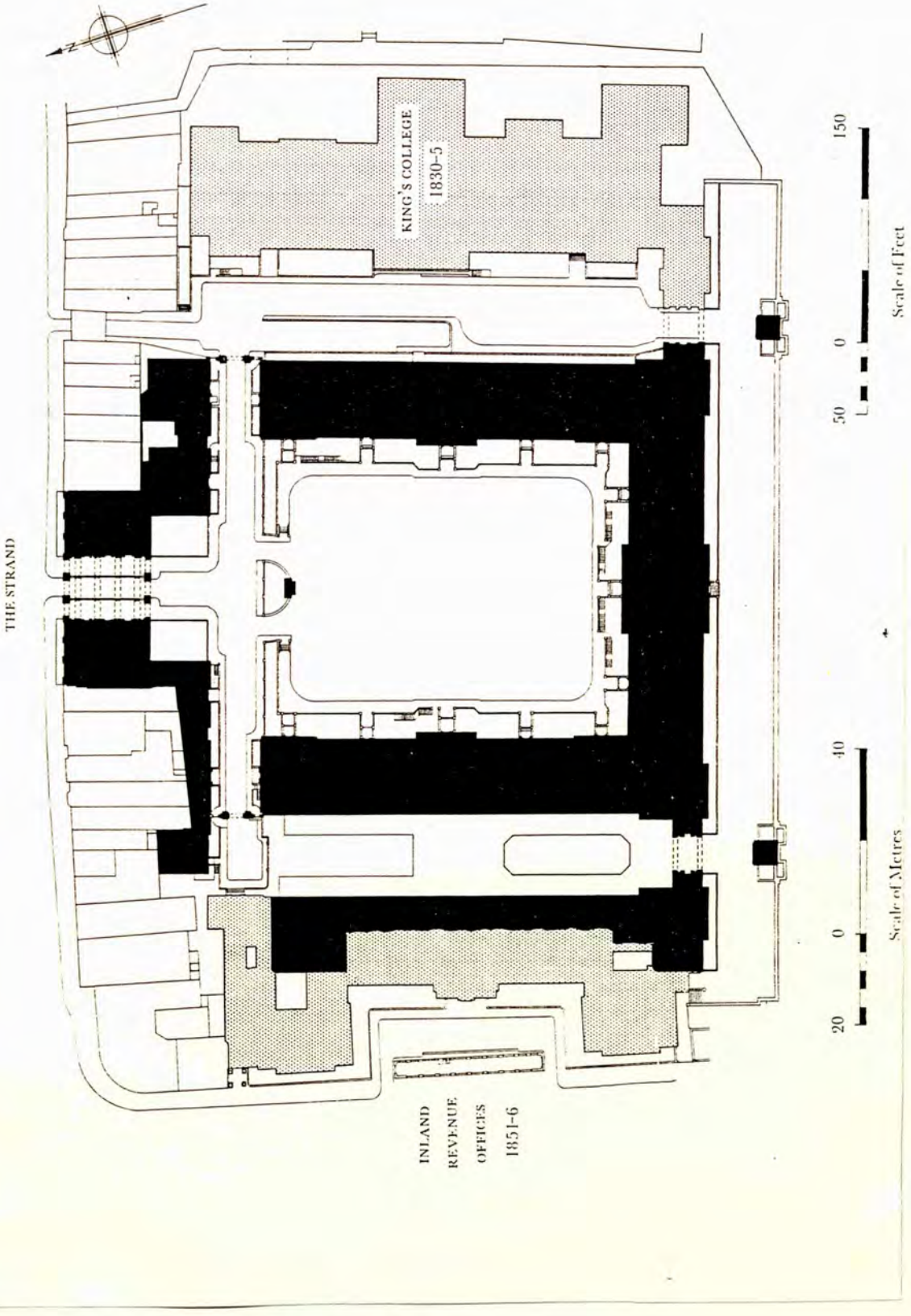
92a. Ordnance Office, Pall Mall, 1851.



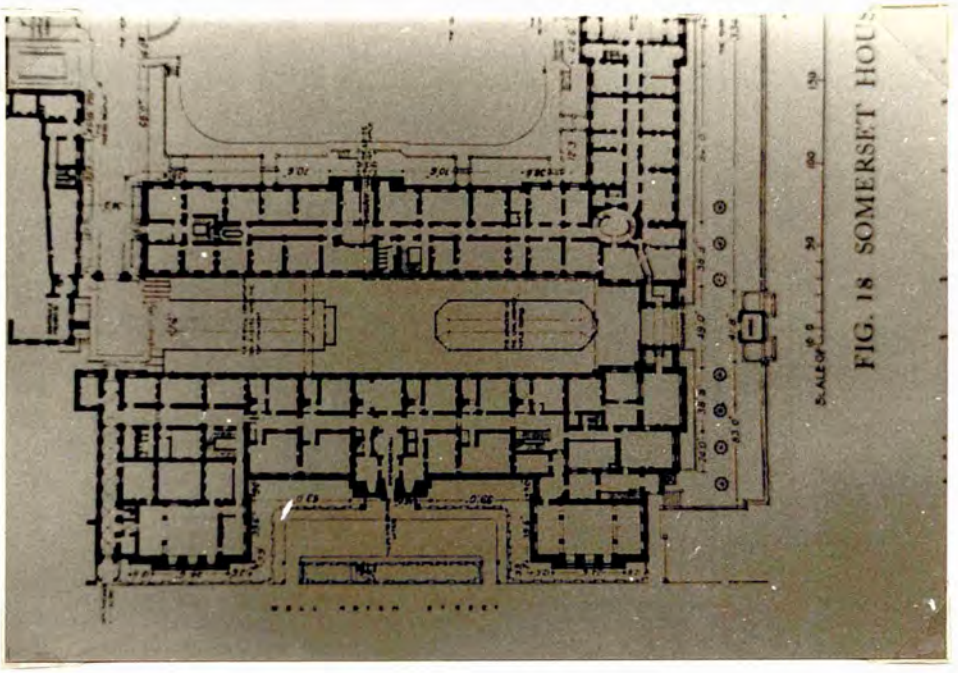
92b. The War Office, Pall Mall (including former Ordnance Office), ground plan, 1869.

93a. Somerset House
Strand front.

93b. Somerset House, courtyard.



94. Somerset House, block plan.



95a. Somerset House, west range Inland Revenue Offices), with west range of existing quadrangle, ground plan.

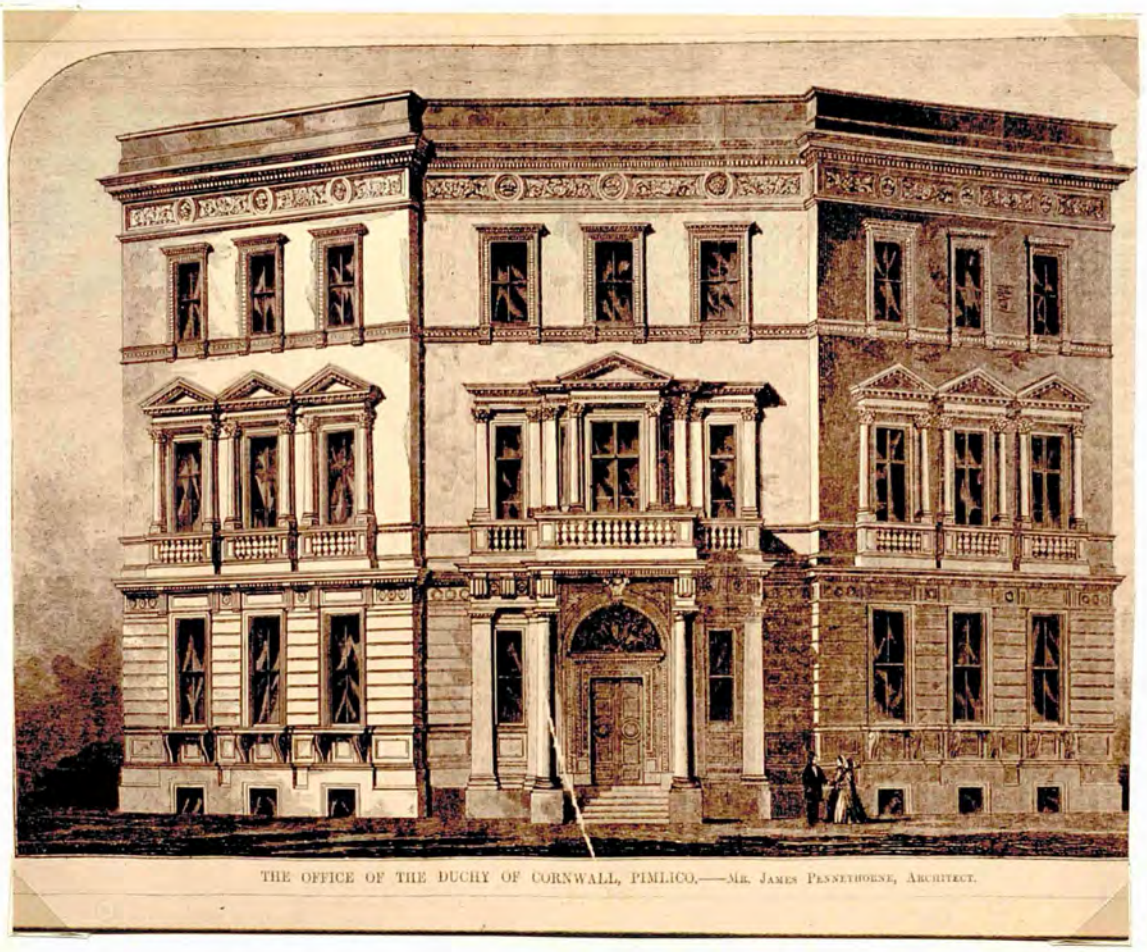
95b. Wellington Street (now Lancaster Place) looking north from Waterloo Bridge (c.1900).

96a. Somerset House, west range.

96b. Somerset House, west range, south wing.

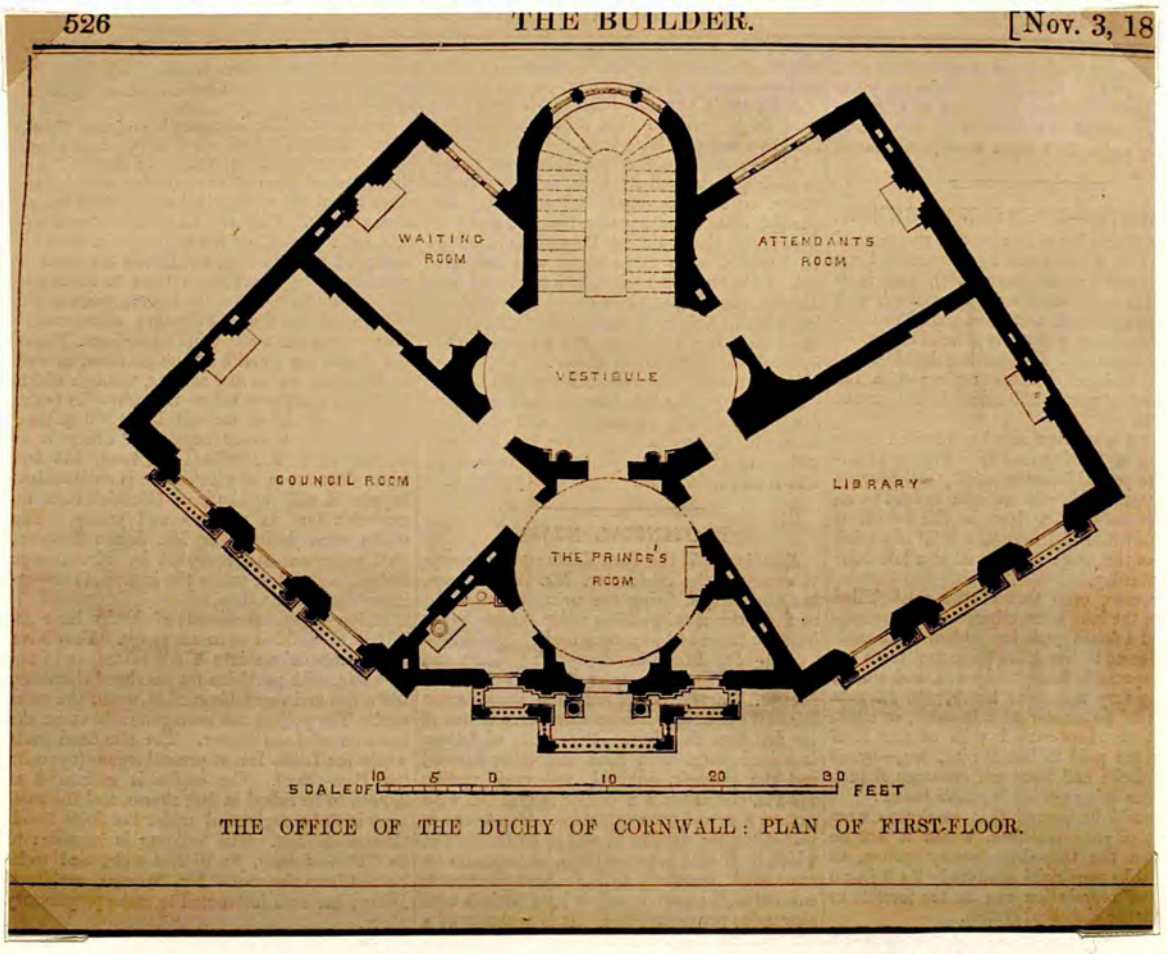
97a. Somerset House, west range, entrance.

97b. Somerset House, west range, doorway to north of north wing.

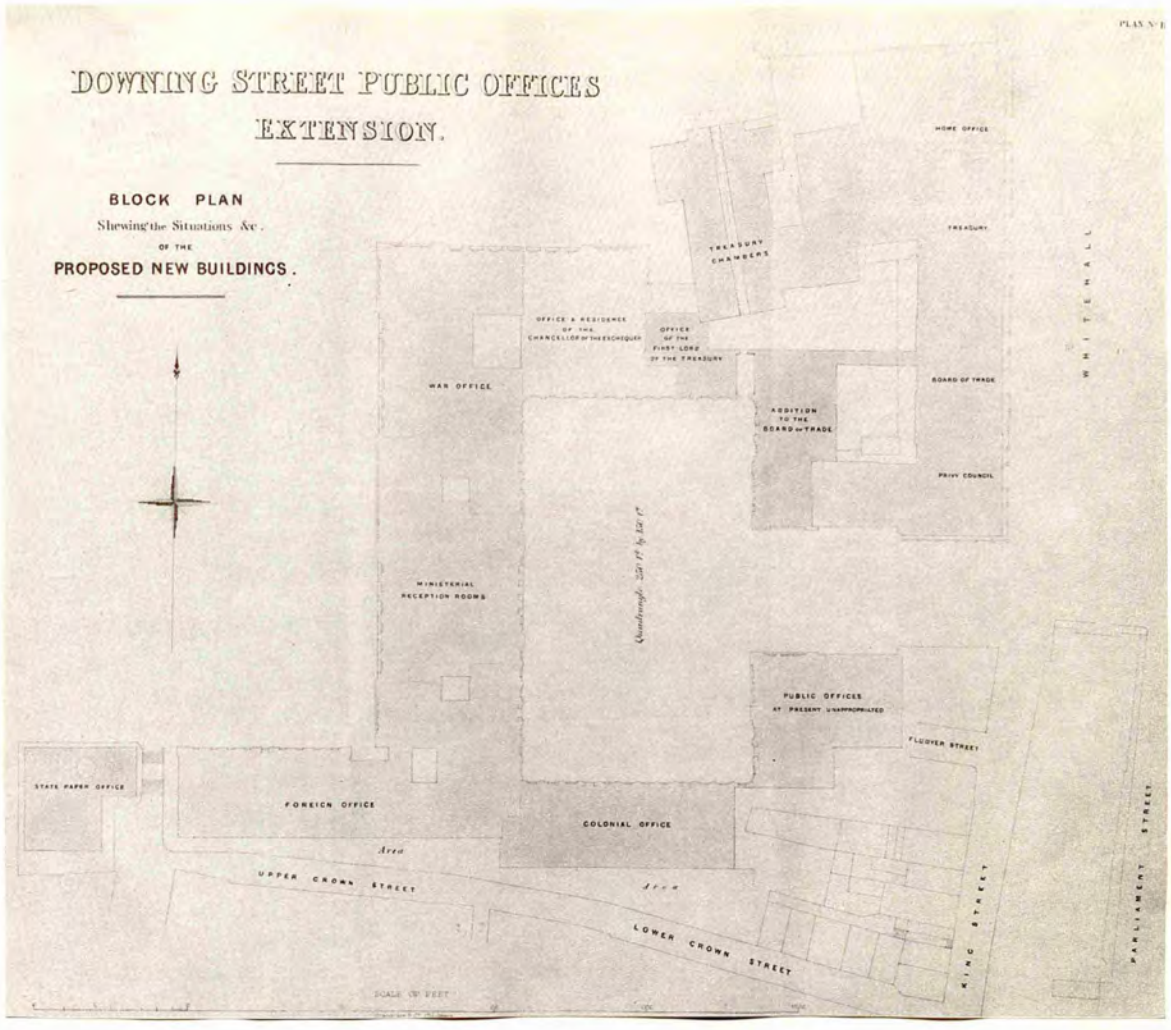


THE OFFICE OF THE DUCHY OF CORNWALL, PIMLICO.—MR. JAMES PENNETHORNE, ARCHITECT.

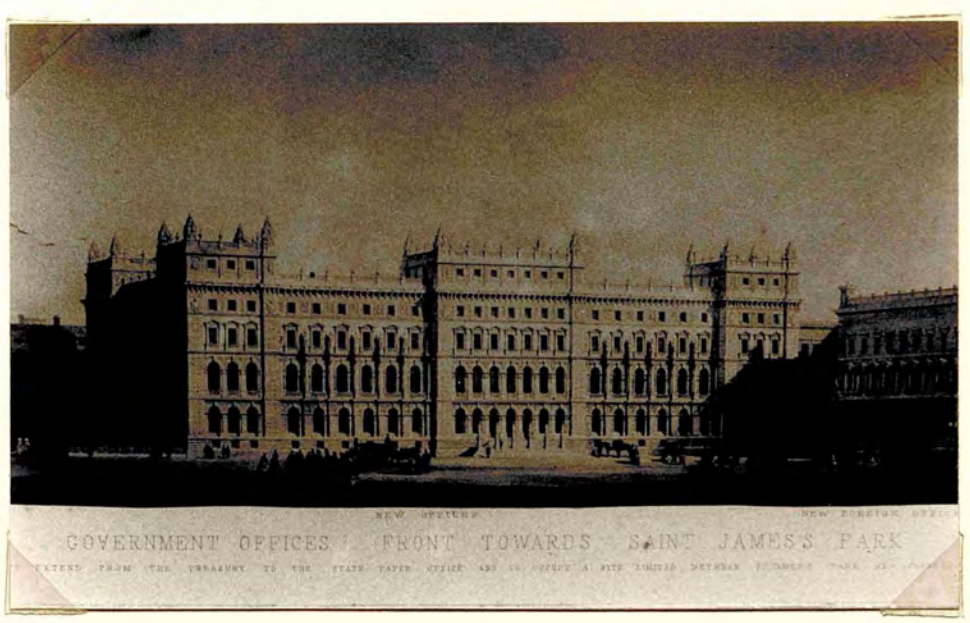
98a. Duchy of Cornwall Office in its original state (1855).



98b. Duchy of Cornwall Office, first floor plan, (1855).



99a. Proposed new Government Offices, Whitehall, block plan (1854-5).



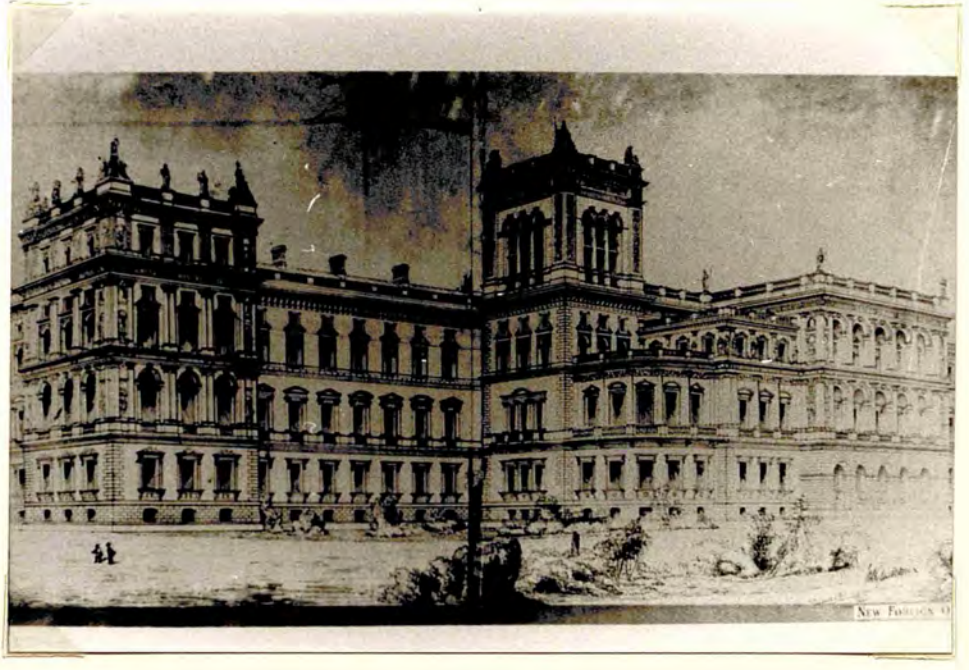
99b. Proposed new Government Offices, Whitehall, frontage to St. James's Park, early 1855.

100. Proposed new Government Offices, Whitehall, revised design, April 1855.

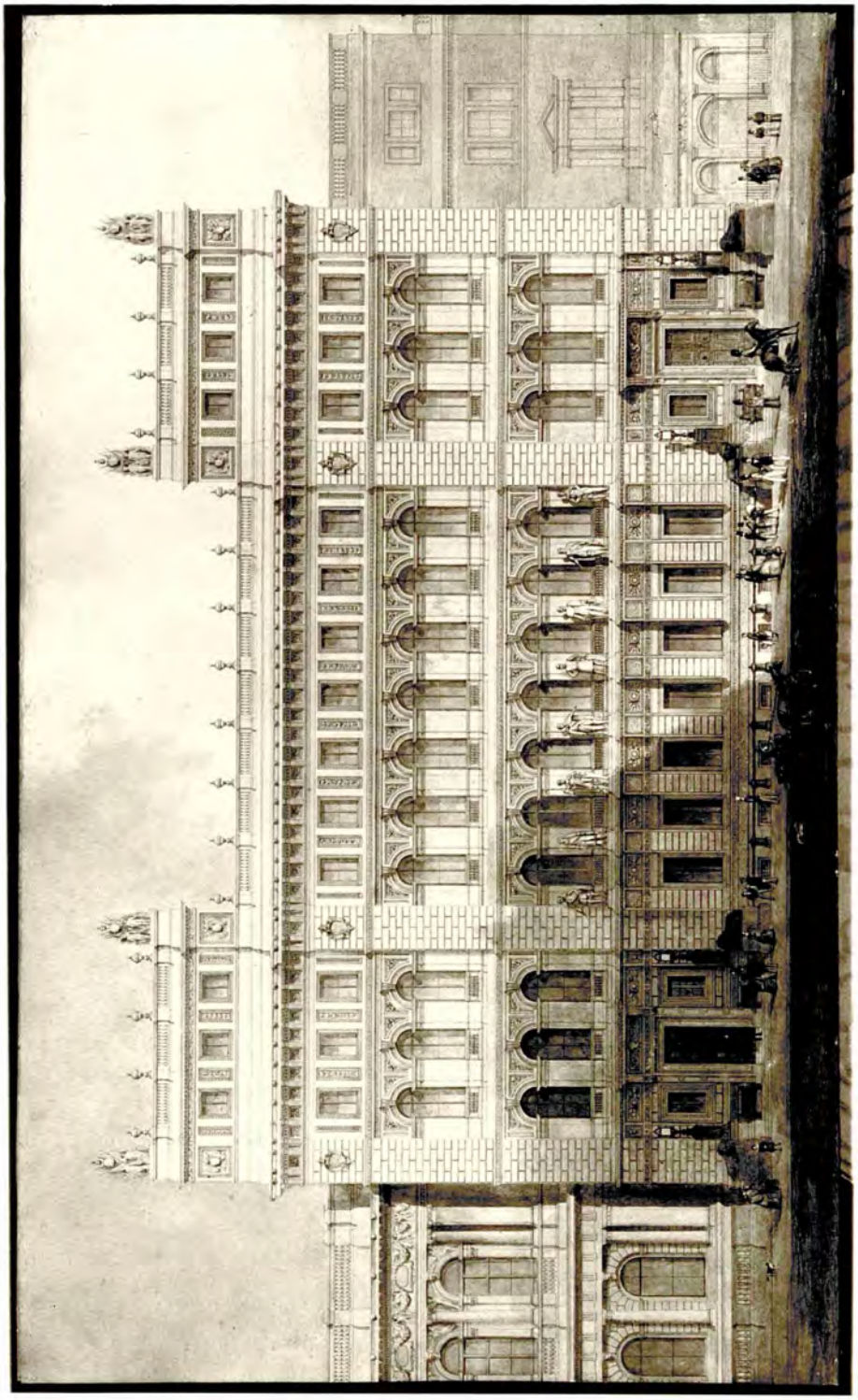
101. Plan of site for proposed new Foreign Office, showing ground to be purchased between Fludyer Street and Crown Street, July 1855.

102. Proposed new Government Offices, Whitehall, second revised design, frontage to St. James's Park, August - September 1855.

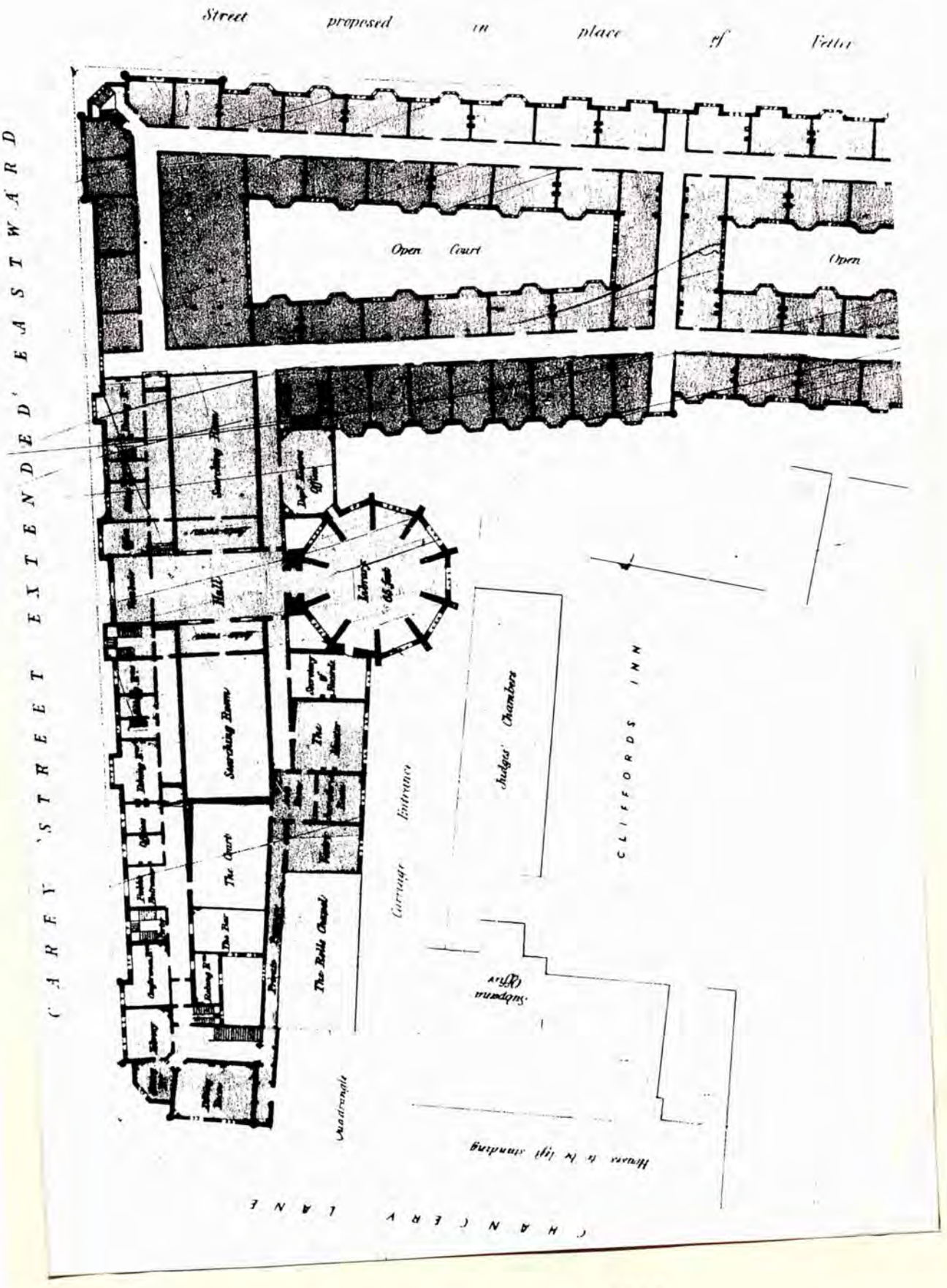
103a. Proposed new Government Offices, Whitehall, frontage to Parliament Street, August-September 1855.



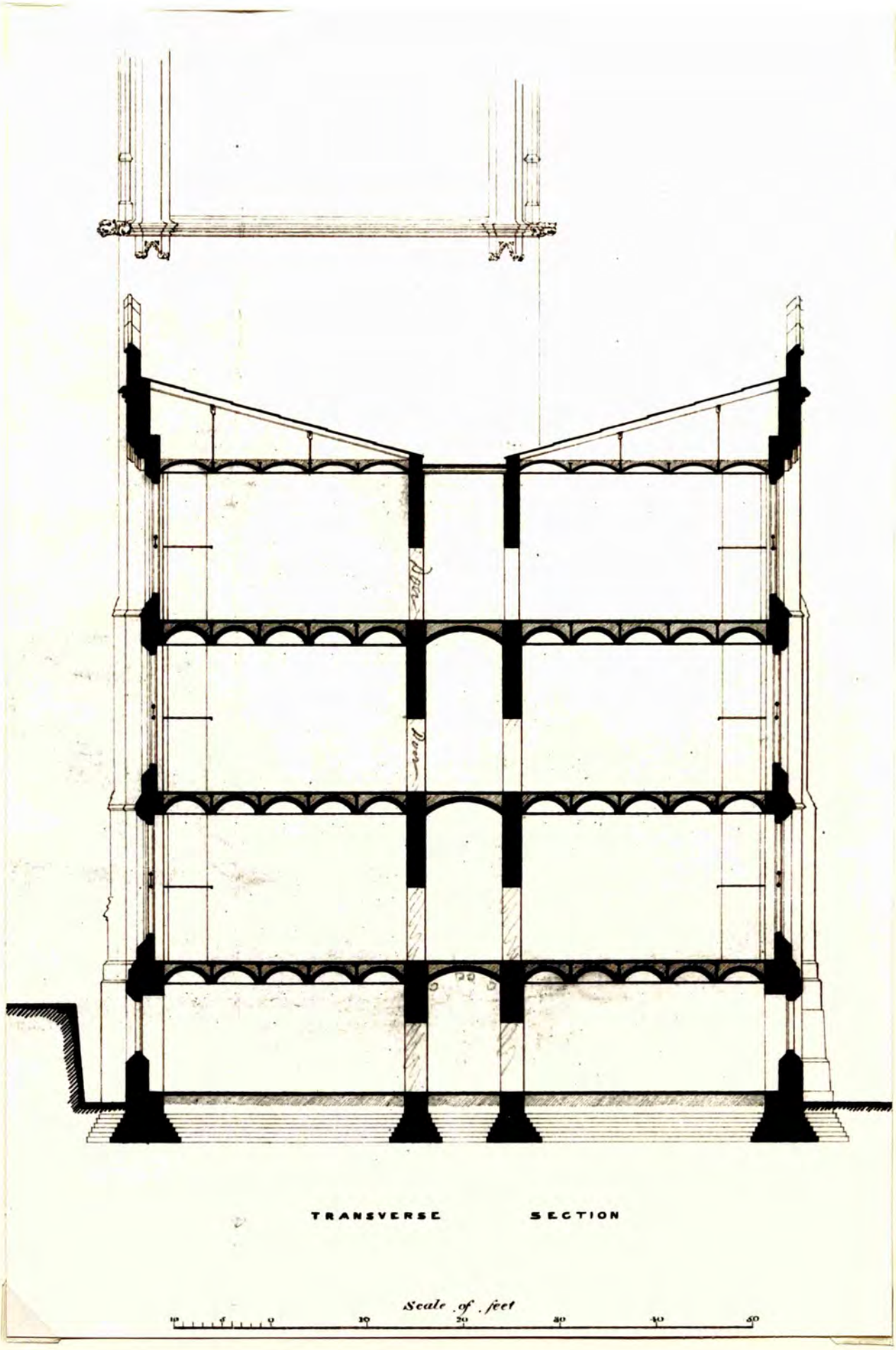
103b. Foreign and Colonial Offices as built to the designs of Gilbert Scott and M. D. Wyatt, frontage to St. James's Park.



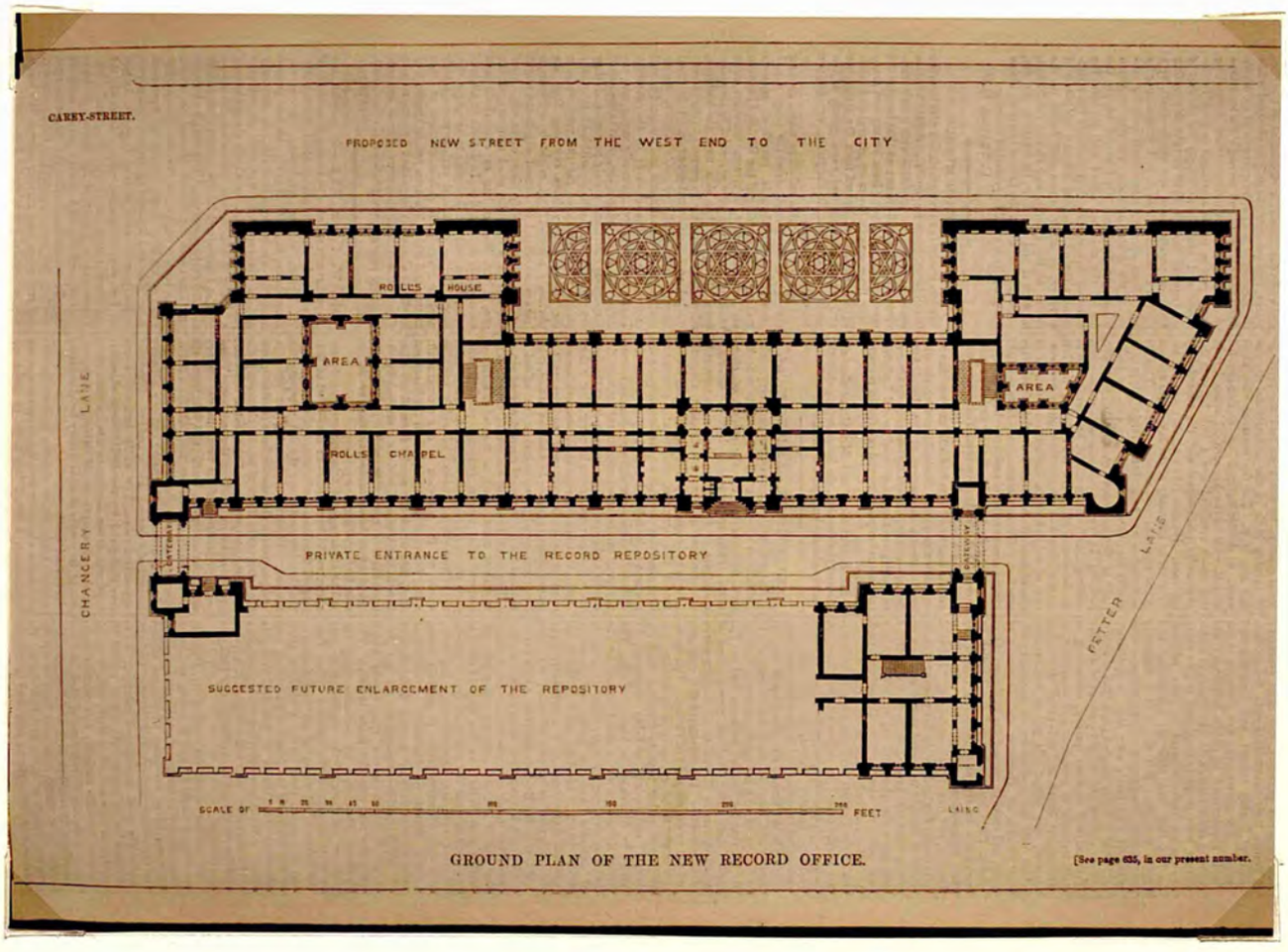
104. Proposed new War Office on site of Buckingham House, Pall Mall, early 1856.



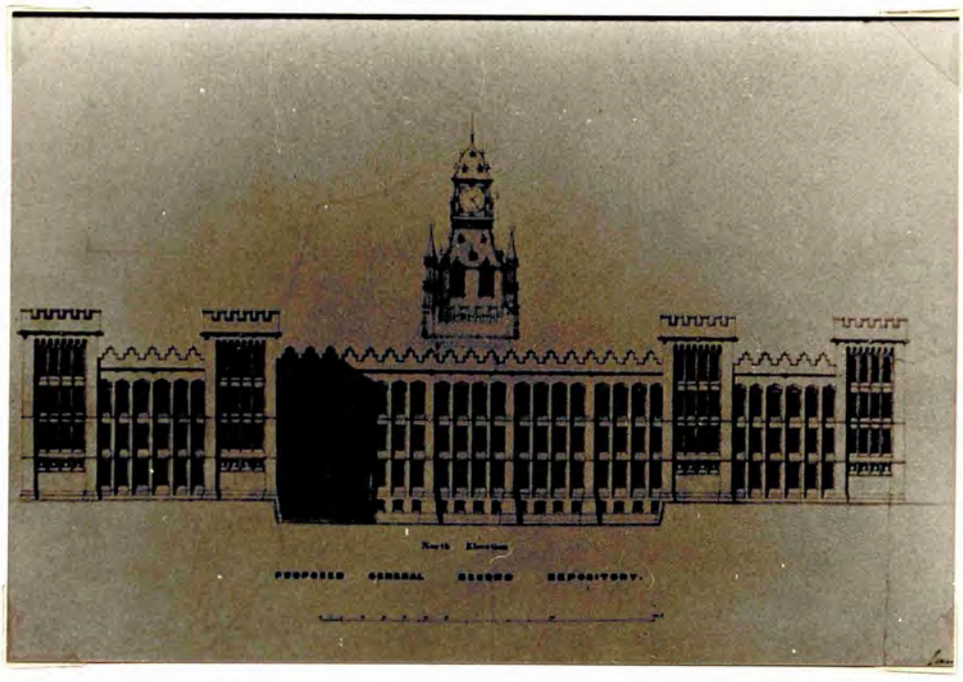
105. Public Record Office, first design, 1847.



106. Public Record Office, cross section.

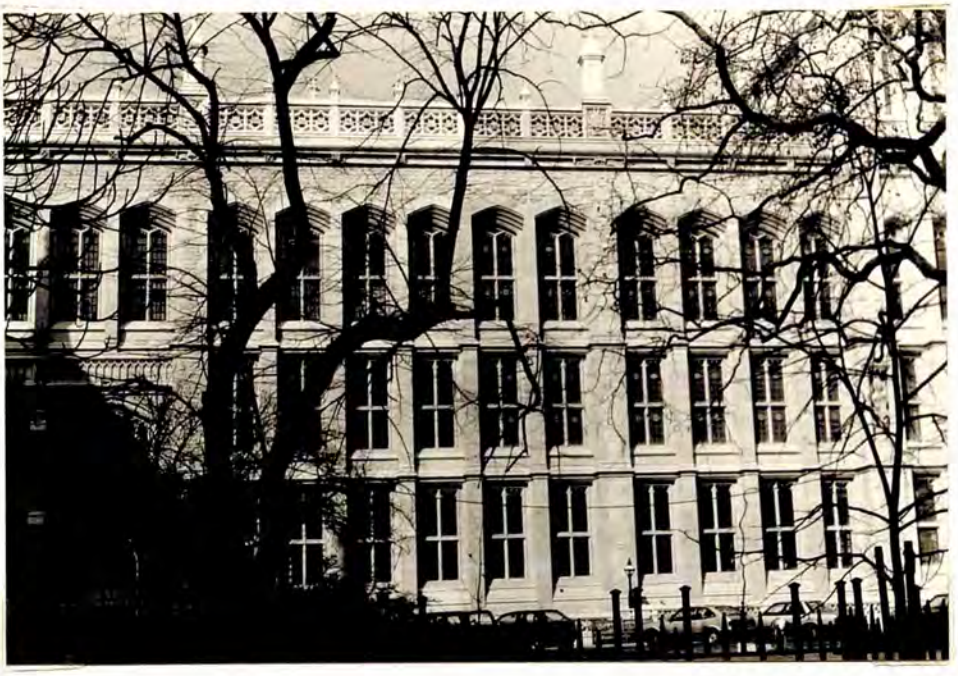


107. Public Record Office, ground plan as executed with some alterations (1851).

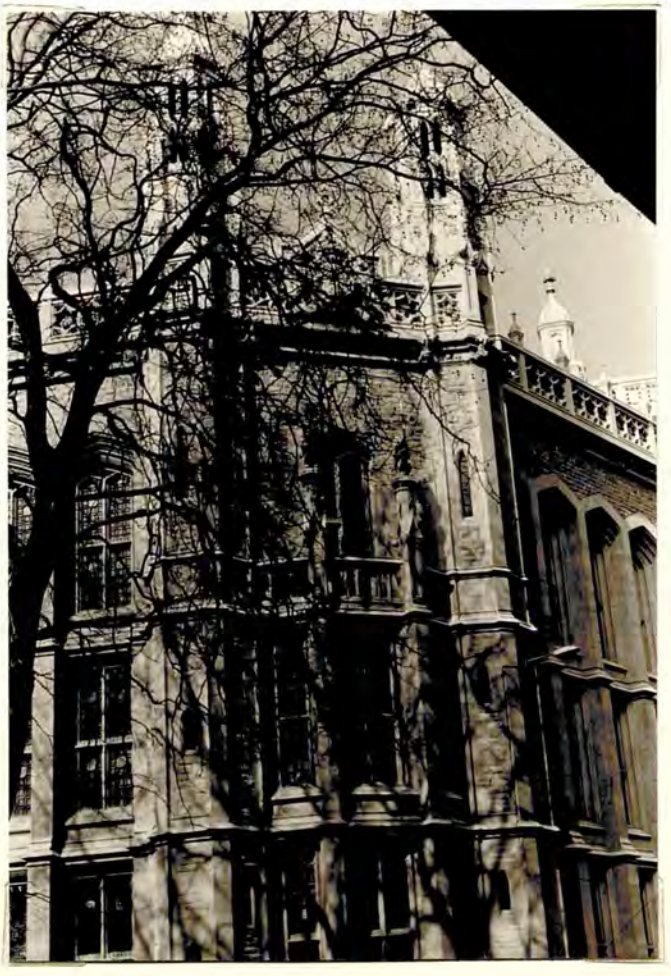


108a. Public Record Office, proposed north elevation, 1850.

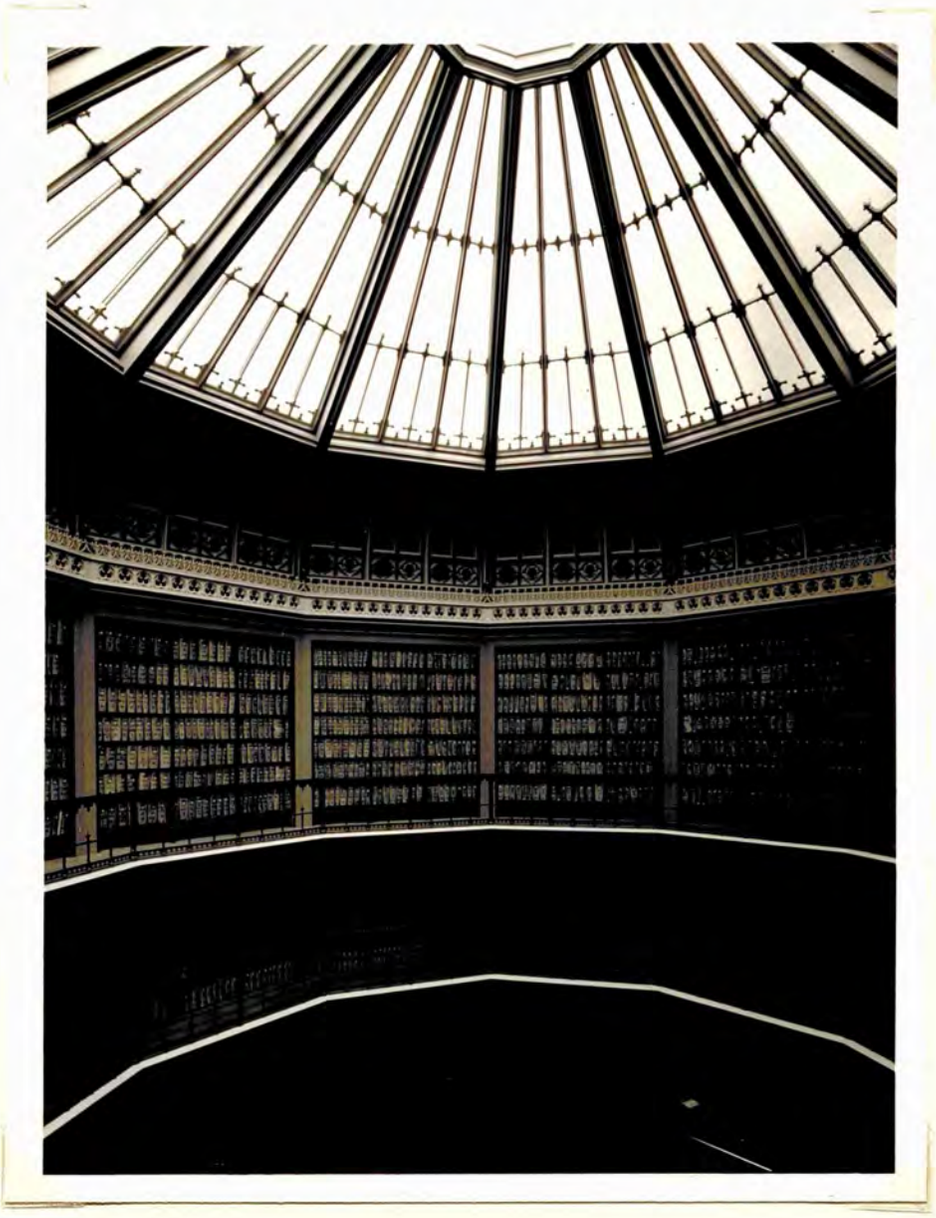
108b. Public Record Office, north elevation as executed with some alterations (1851).



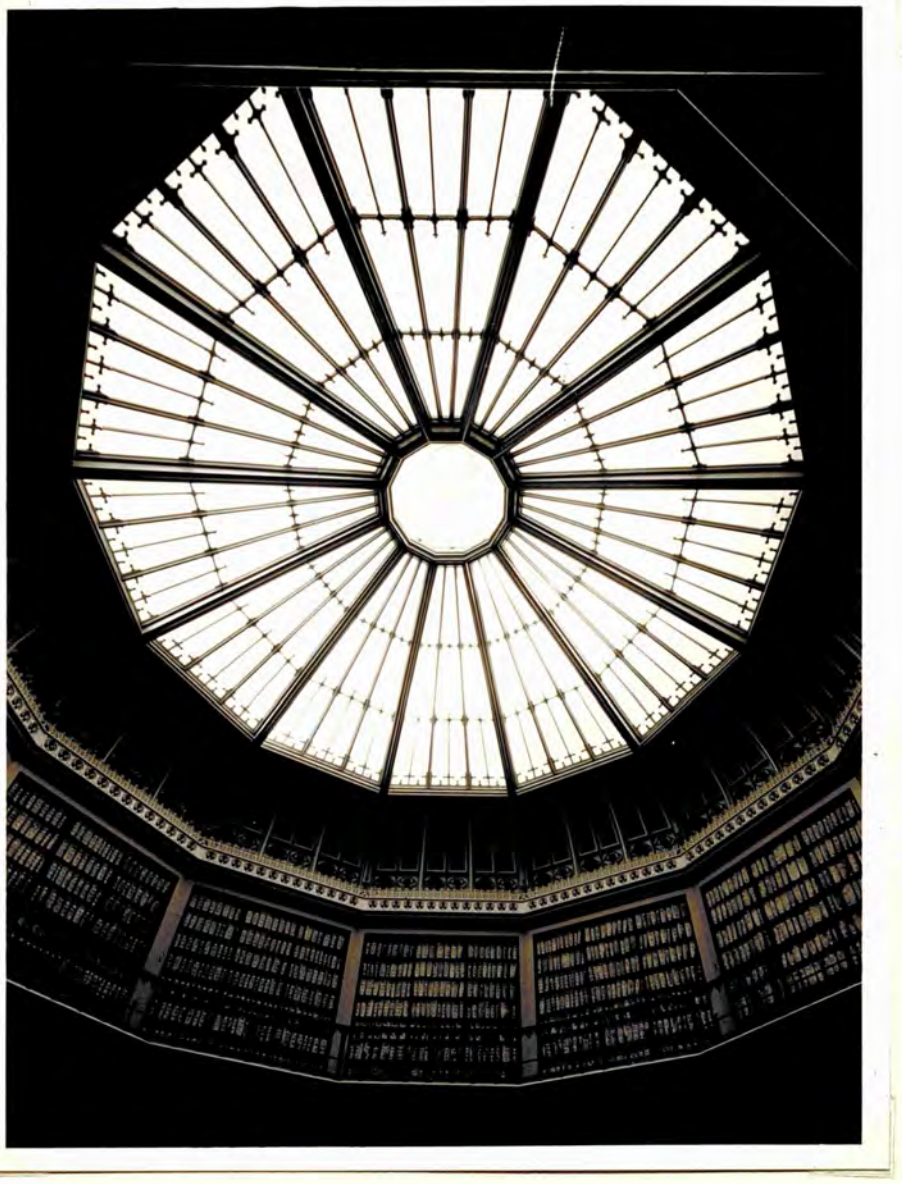
109a. Public Record Office, south elevation.



109b. Public Record Office southern corner of east wing from Fetter Lane.



110. Public Record Office, the Round Room, interior.



111. Public Record Office, the Round Room, roof.

112a. Public Record Office, entrance and tower.

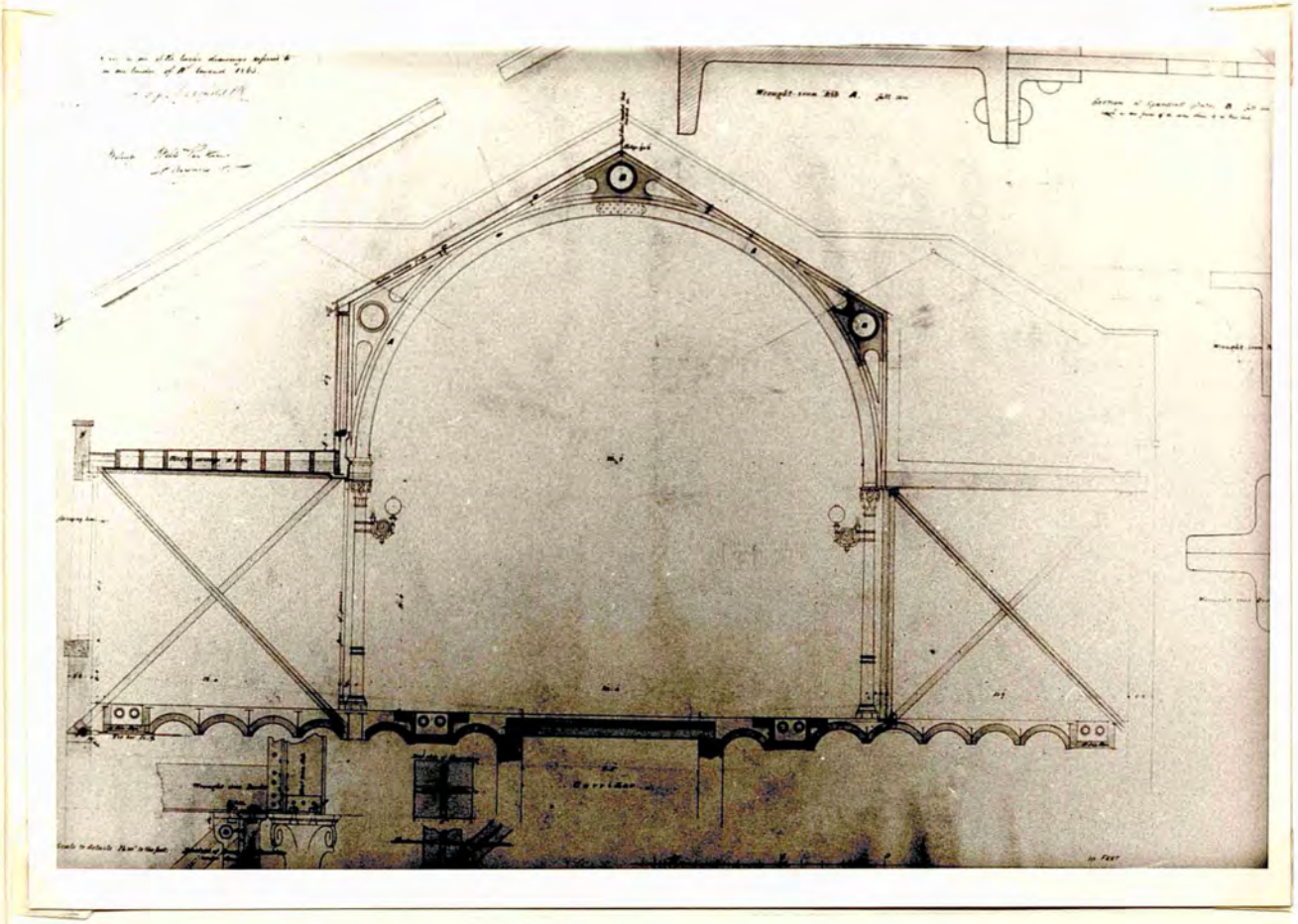
112b. Public Record Office, N.E. tower and east wing from Fetter Lane.

113a. Public Record Office, West wing, Chancery Lane front (Sir John Taylor architect).

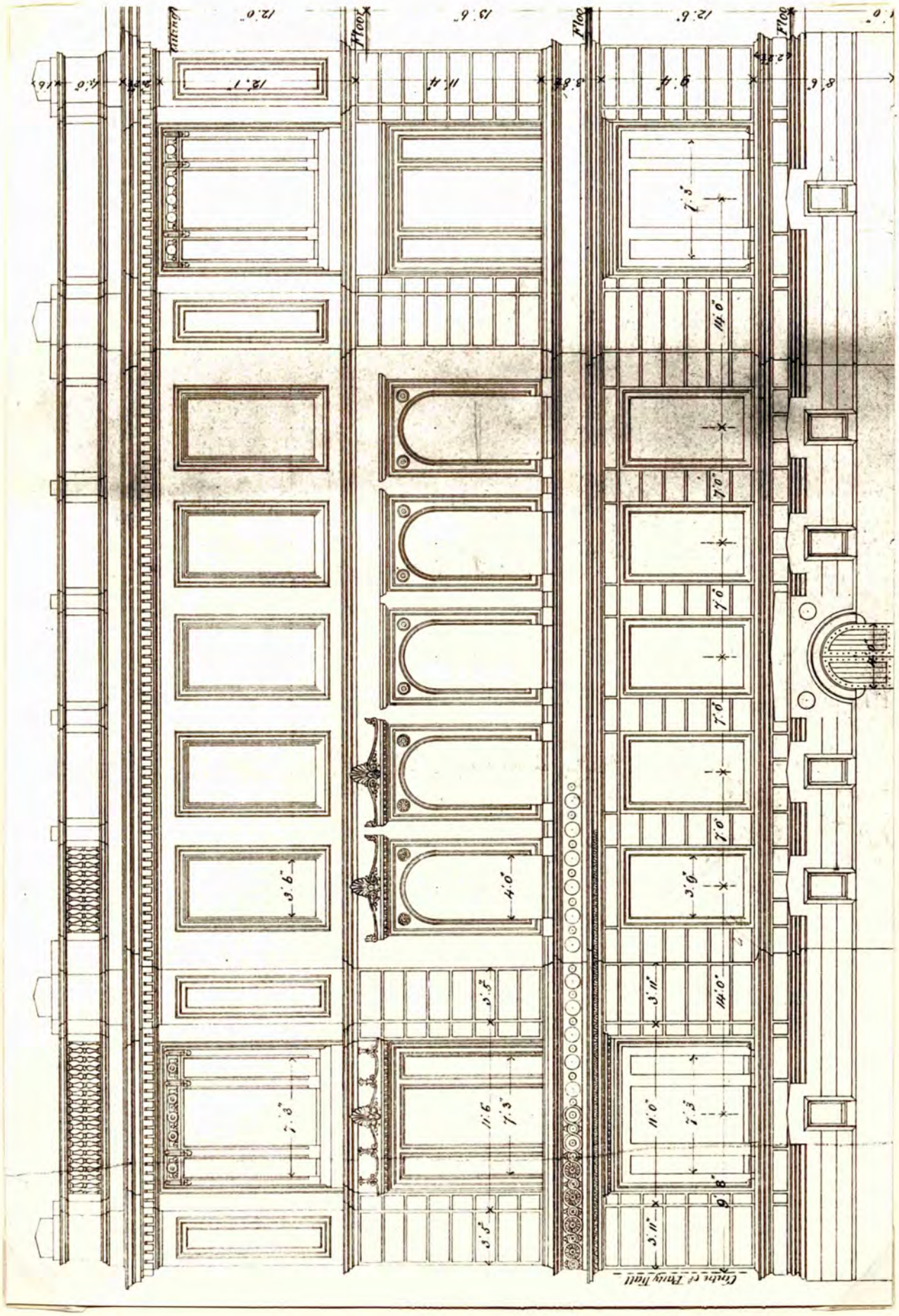
113b. Public Record Office, West wing from Fetter Lane.

114a. Parliamentary Mews (later converted into Stationery Office) Princes Street, Westminster, (1827).

114b. Stationery Office, prior to demolition (1950).



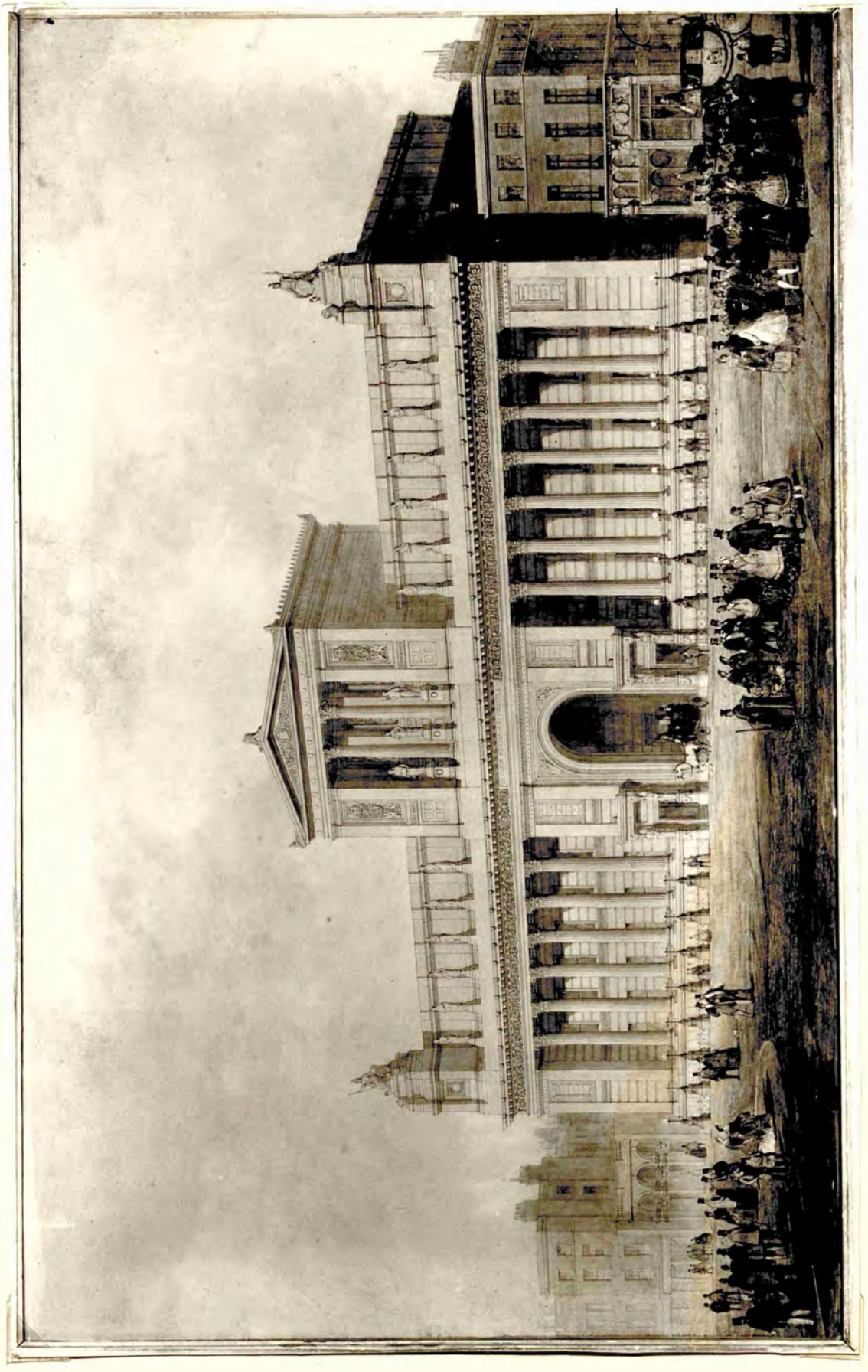
115. Patent Office library, Southampton Buildings, cross-section.



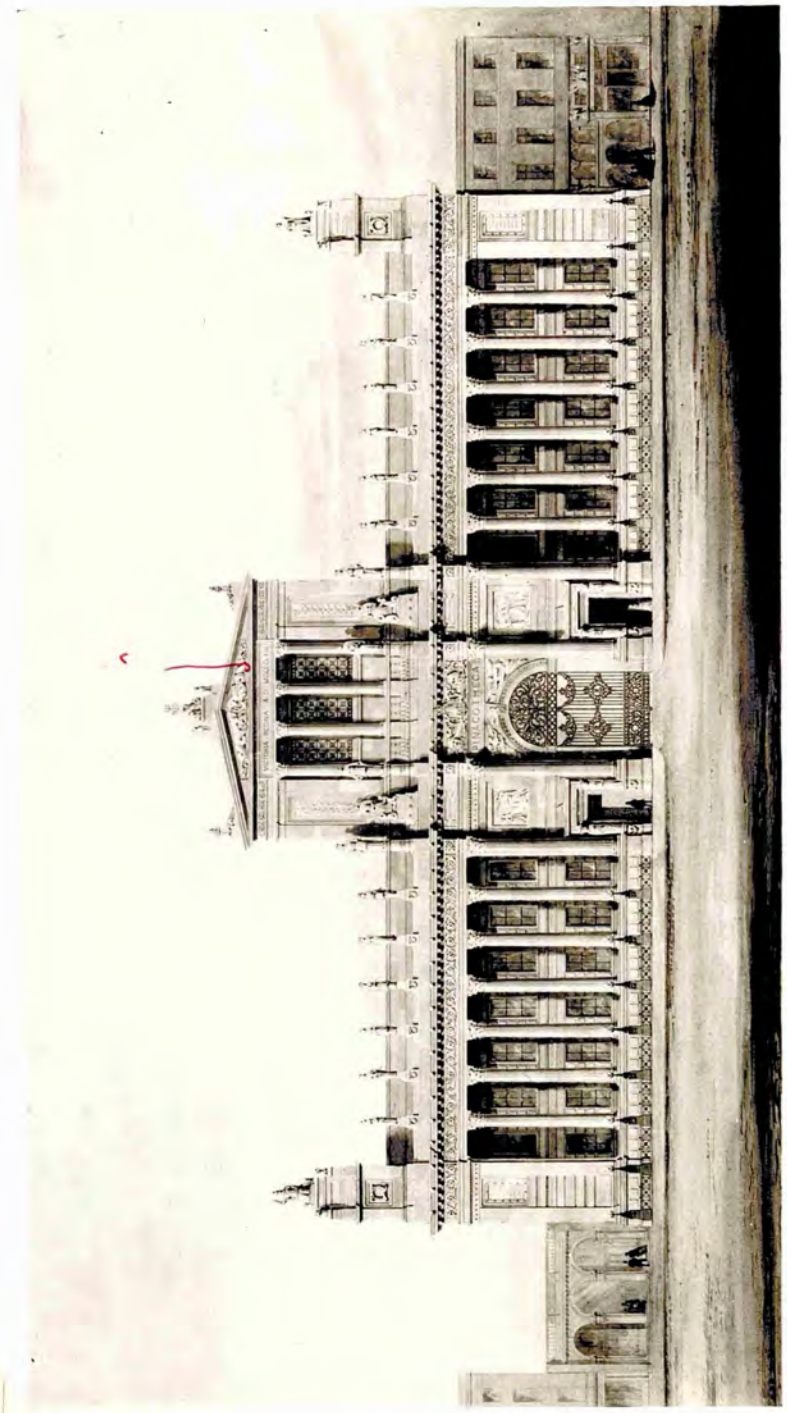
116. Proposed Extension, Probate Registry at Doctors Commons.

117. The Staff College, Camberley, west front, c.1900.

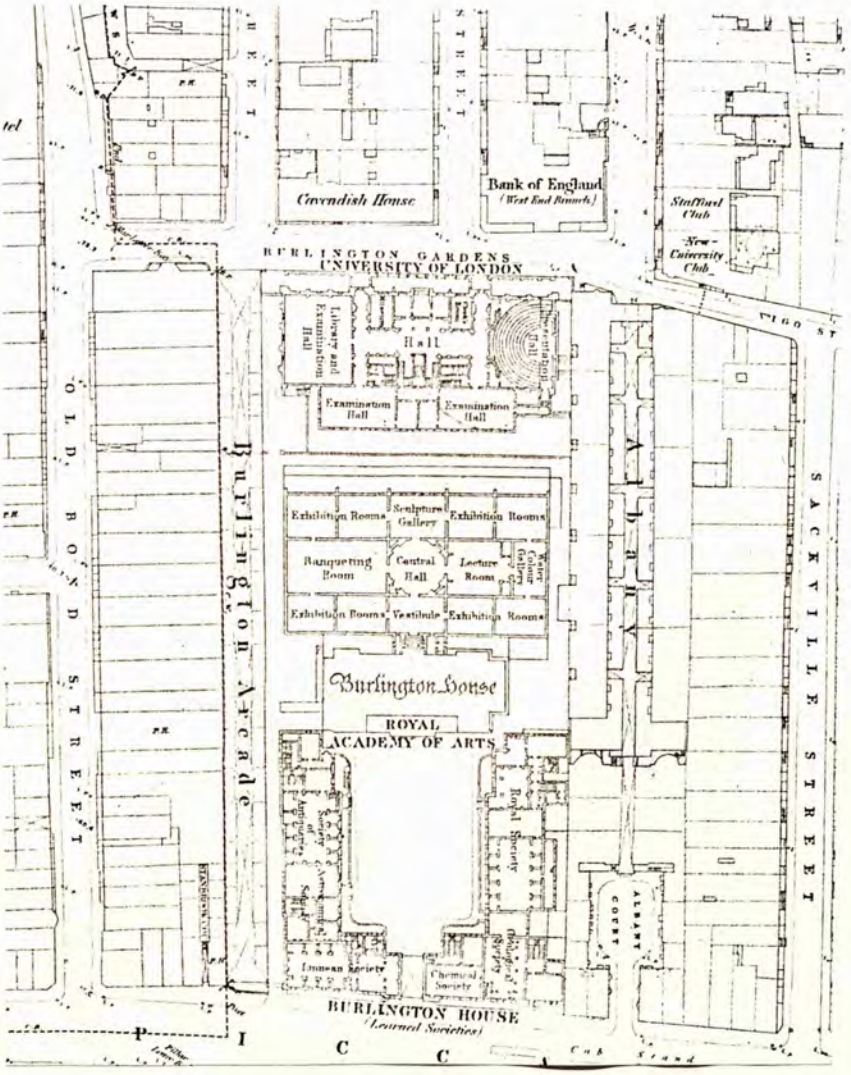
118. The Staff College, entrance hall (c.1900).



119. Design for Piccadilly frontage to Burlington House, c. 1862.



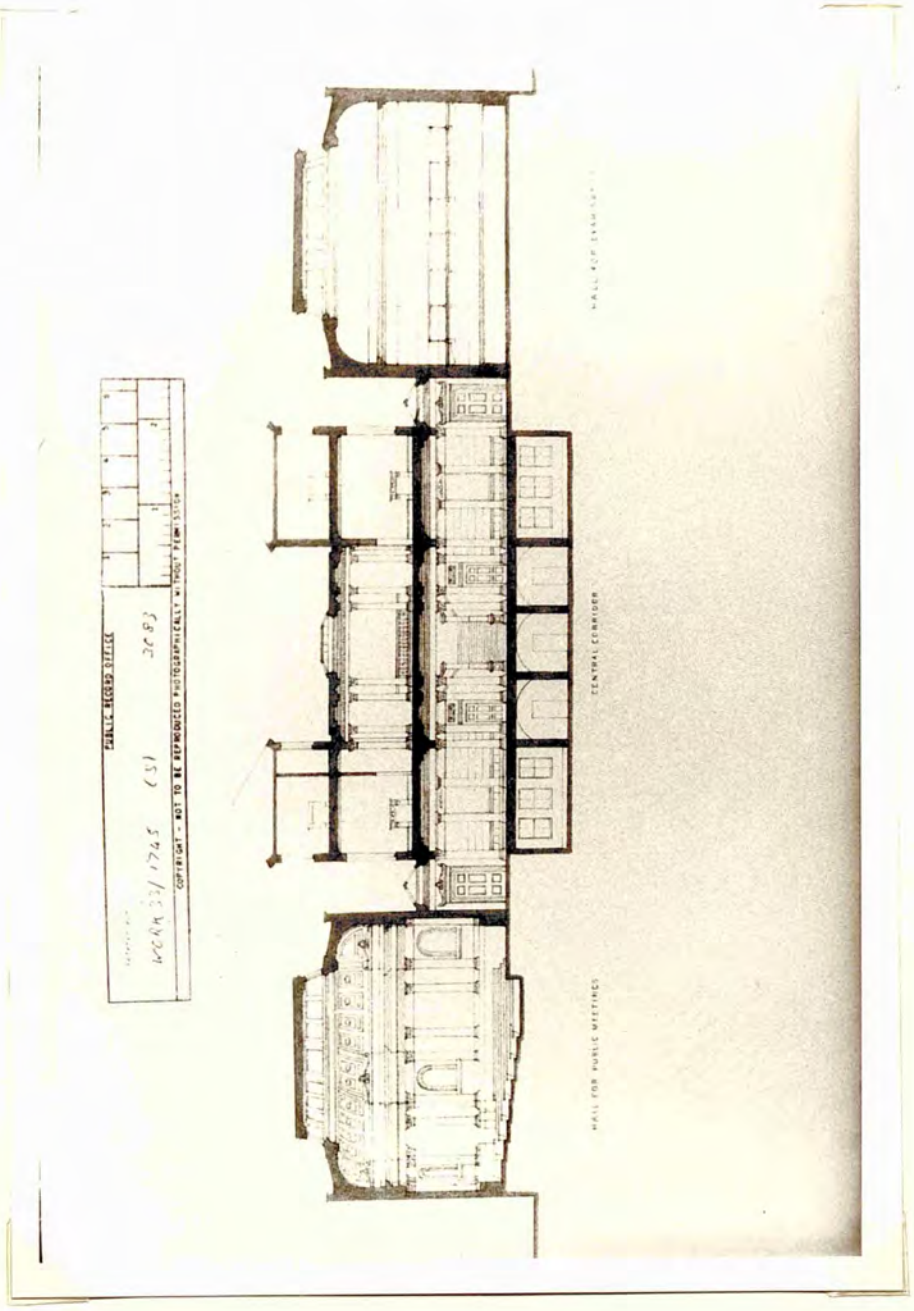
120. Revised design for Piccadilly frontage to Burlington House, c.1863.



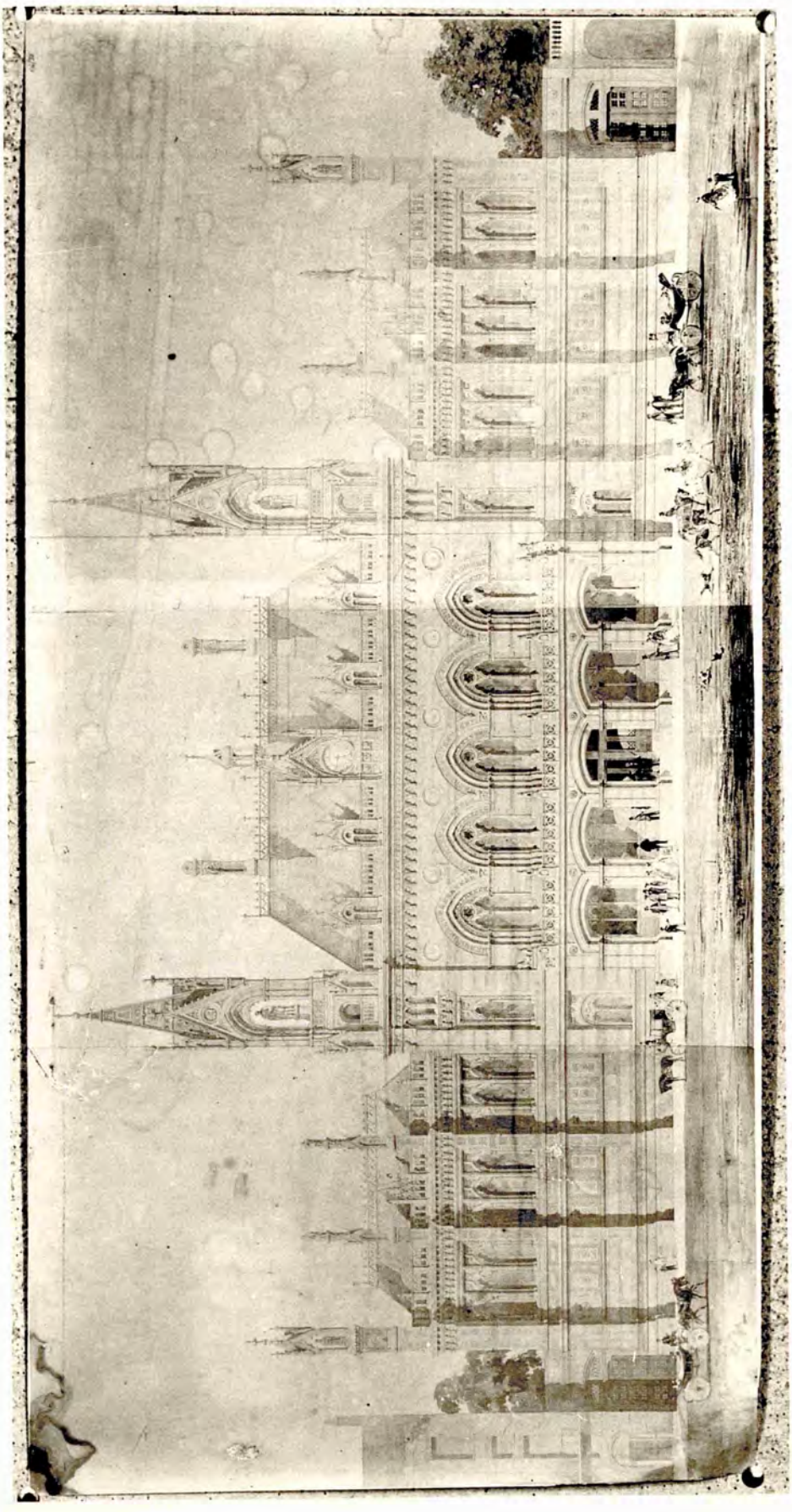
121. The Burlington House site after rebuilding (1869).

122a. Burlington House as rebuilt for the Royal Academy by Sydney Smirke.

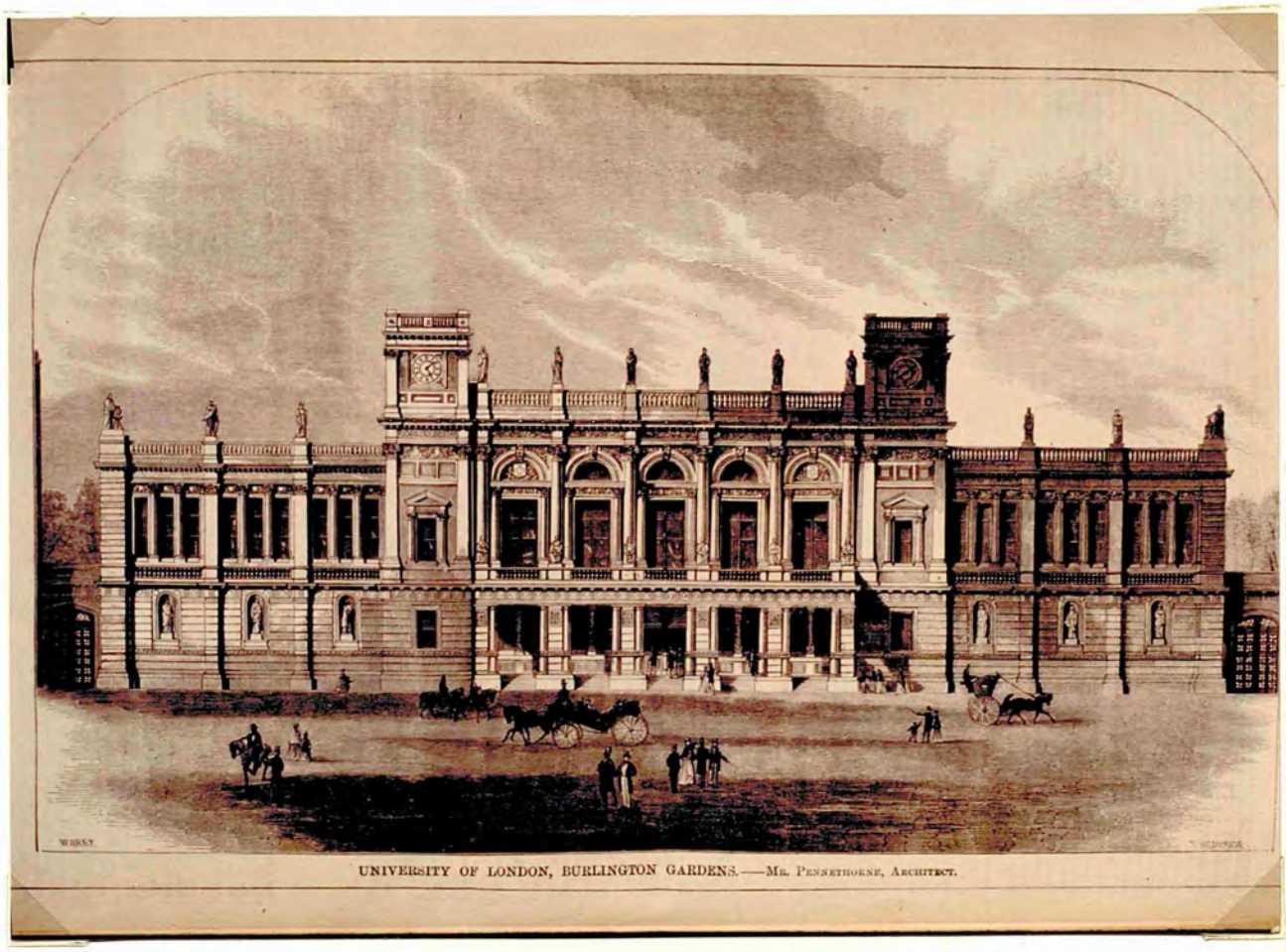
122b. The Piccadilly frontage to Burlington House as executed (Banks and Barry).



123. London University Senate House, Burlington Gardens, "plain classic" design, longitudinal section, March 1866.

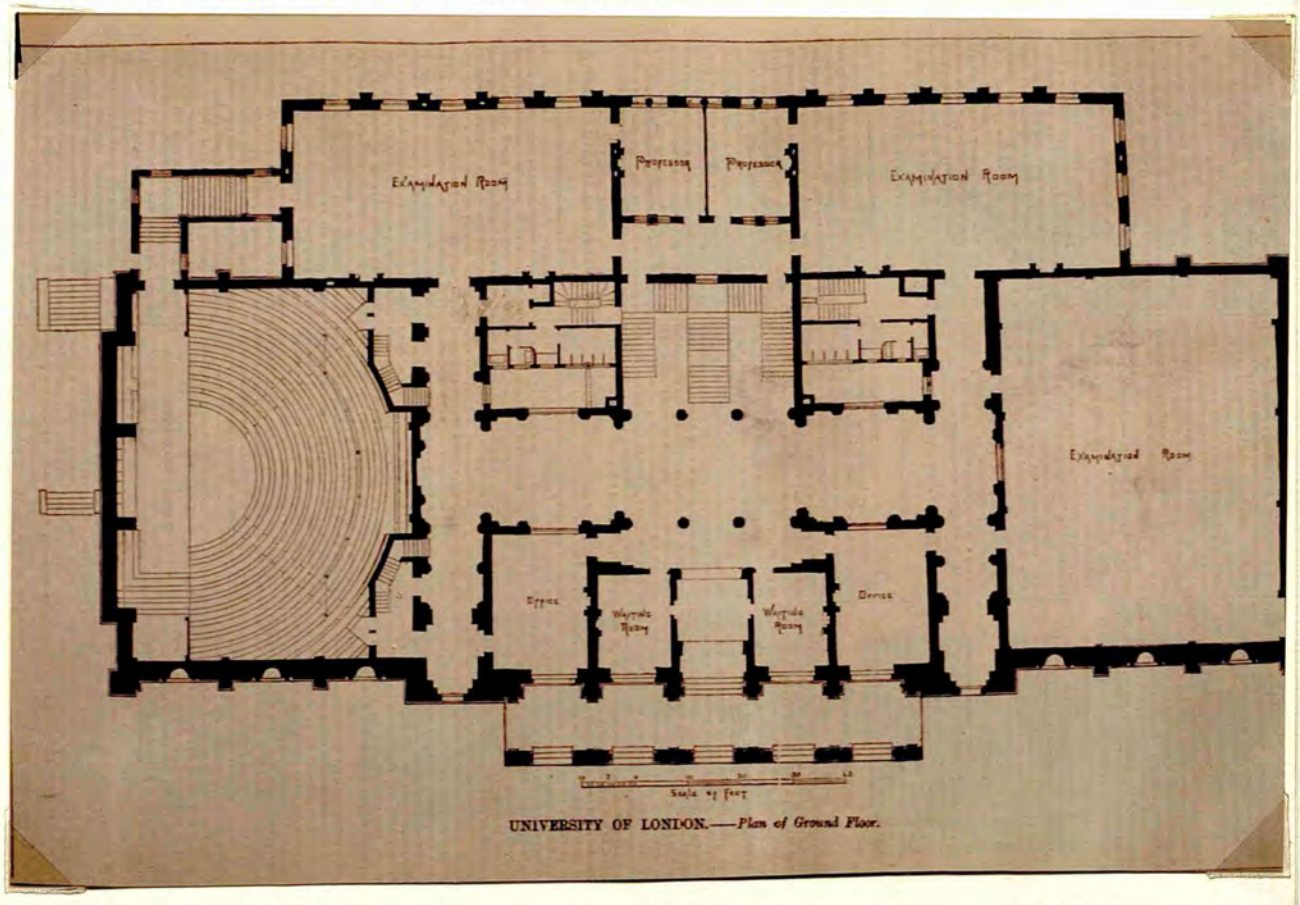


124. London University Senate House, facade to Burlington Gardens, Gothic design, August 1866.



UNIVERSITY OF LONDON, BURLINGTON GARDENS.—Mr. Pennethorne, Architect.

125a. London University Senate House, facade to Burlington Gardens, final design, June 1867.



UNIVERSITY OF LONDON.—*Plan of Ground Floor.*

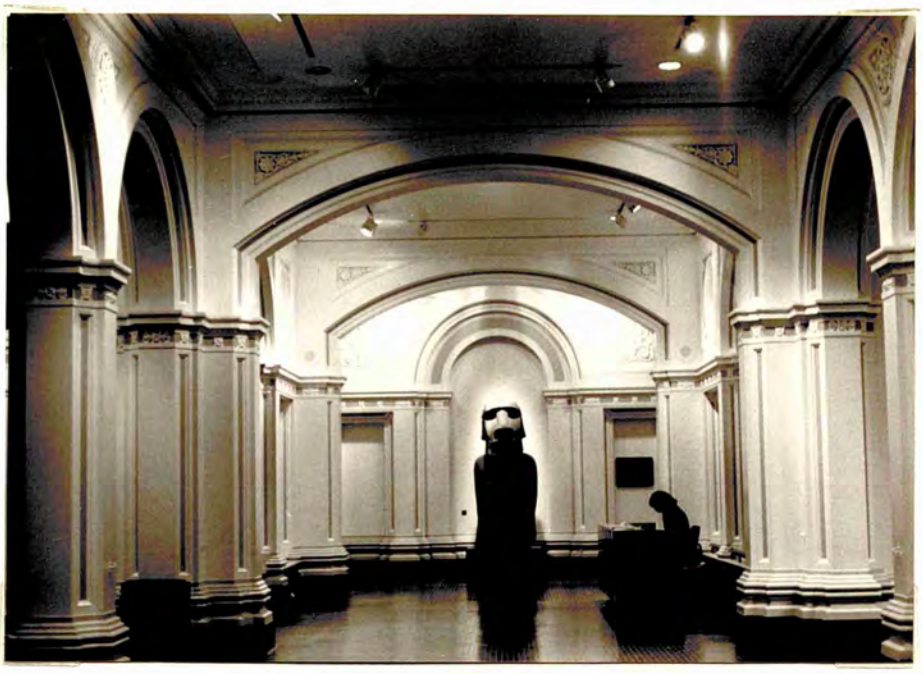
125b. London University Senate House, ground plan, 1867.

126a. London University Senate House, north elevation.

126b. London University Senate House, south elevation.

127a. London University Senate House, north elevation, western part.

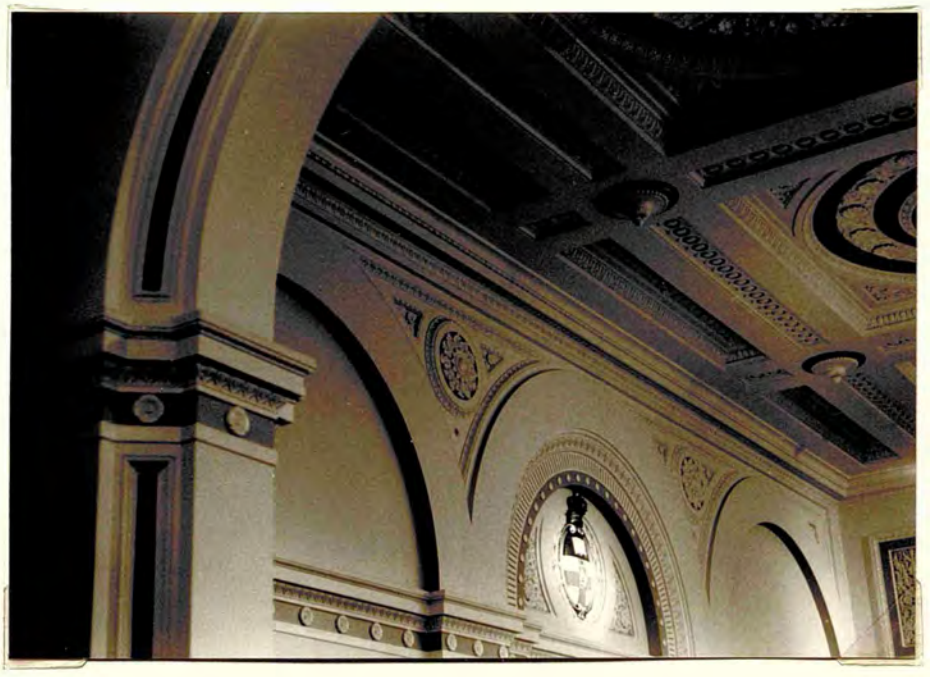
127b. London University Senate House, statue of John Locke.



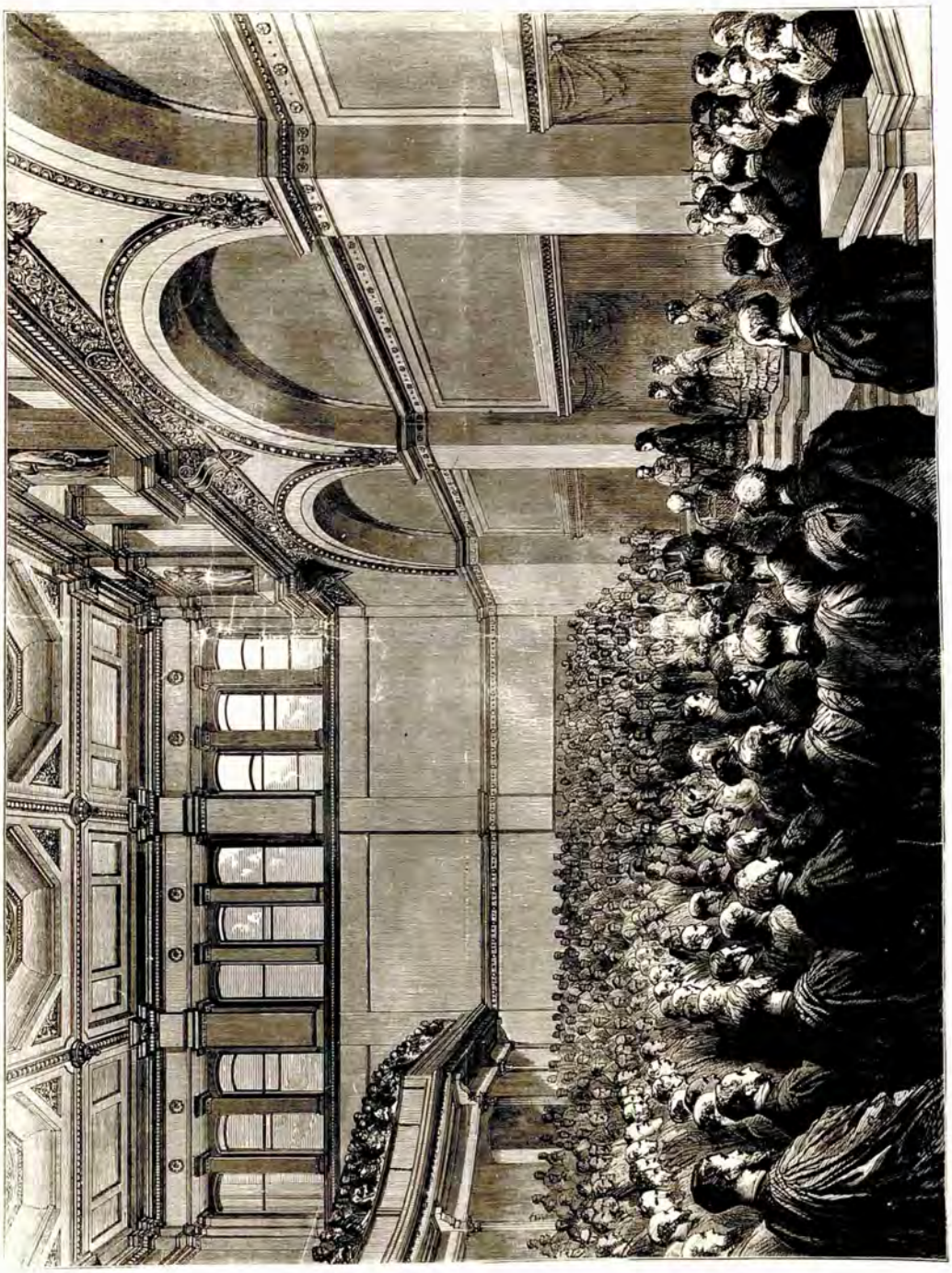
128a. London University Senate House, interior, east-west corridor.

128b. London University Senate House, staircase.

129a. London University Senate House, staircase lantern.



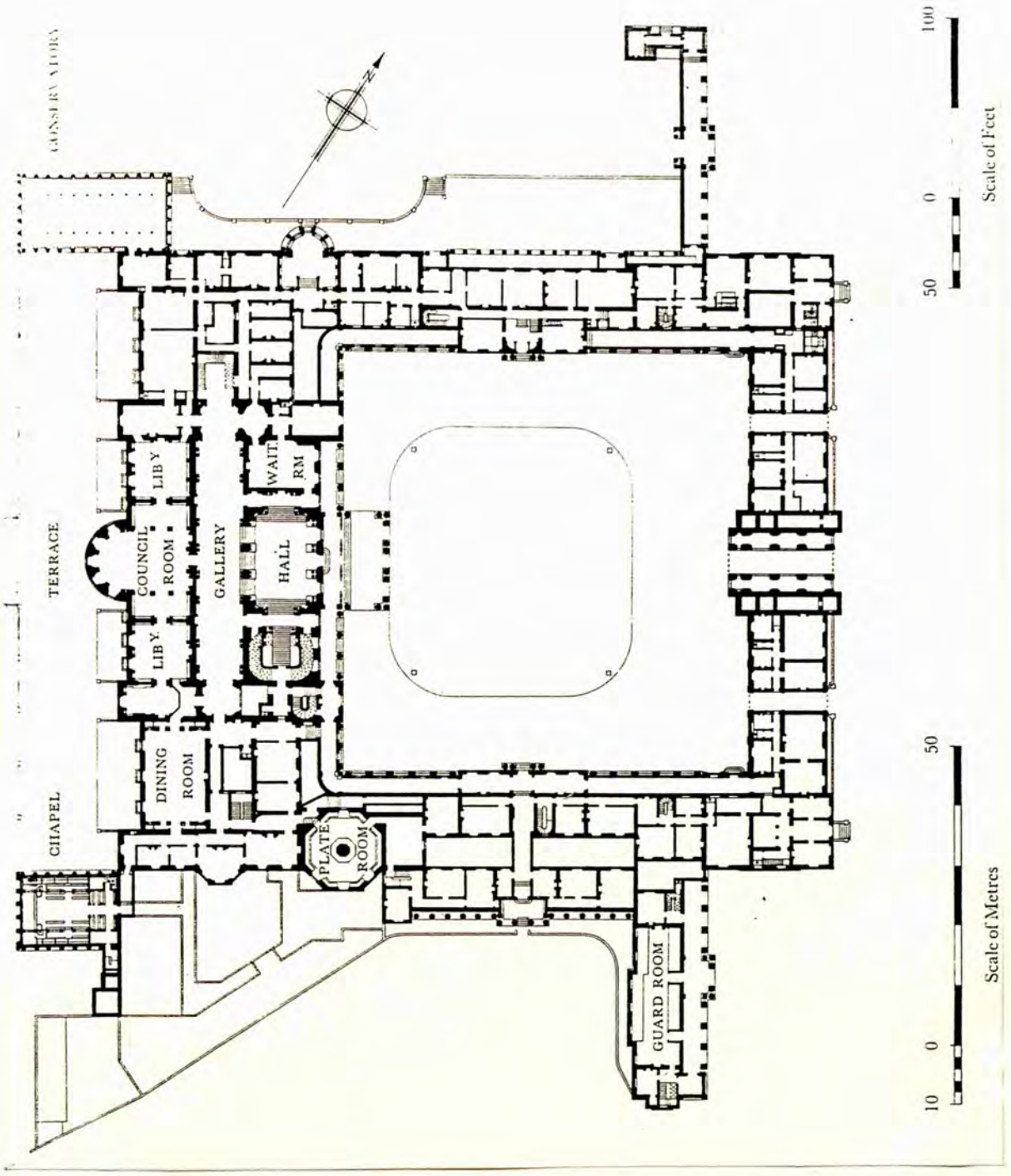
129b. London University Senate House, first floor, plasterwork outside former Senate Room.



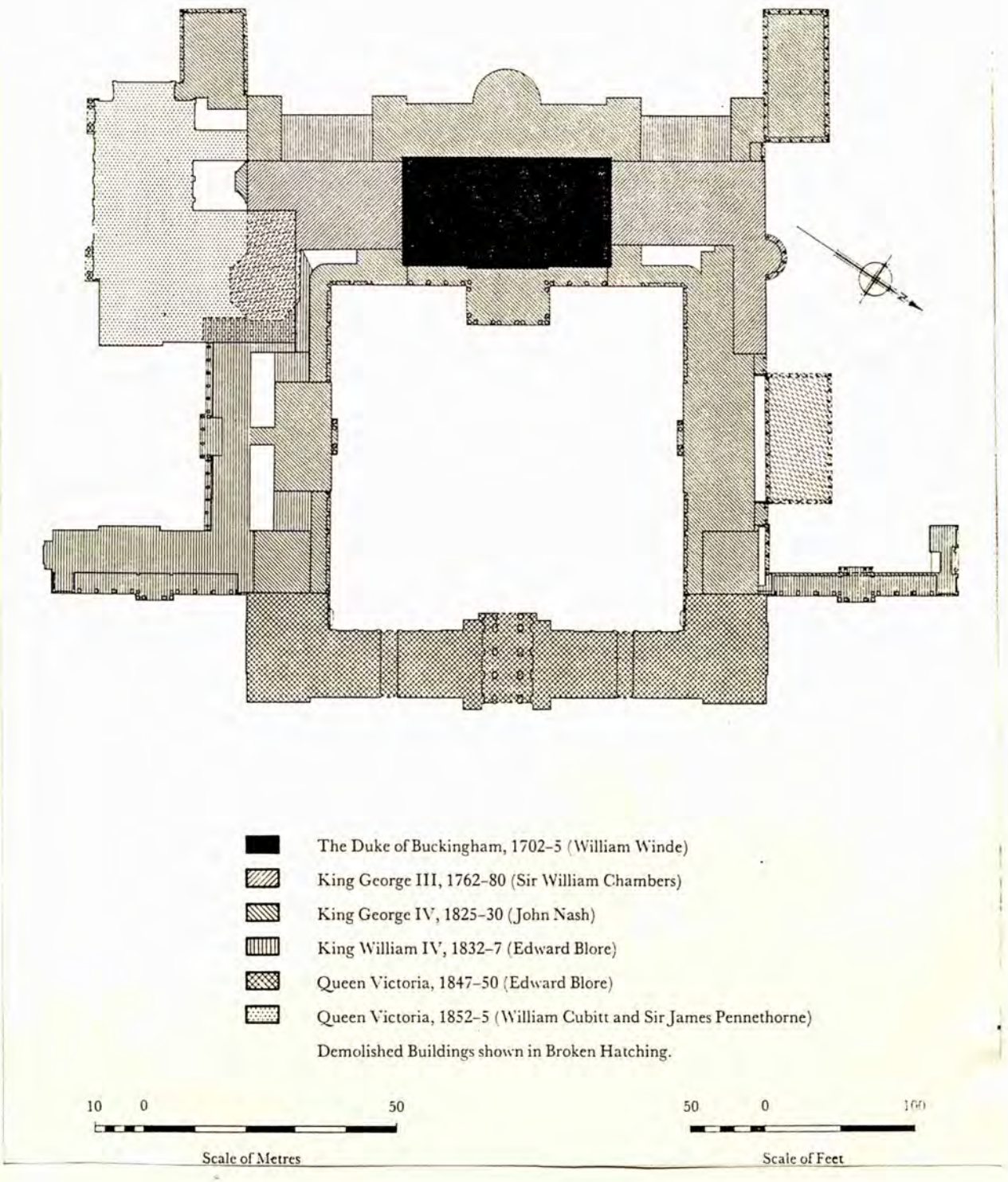
THE THEATRE OF THE NEW LONDON UNIVERSITY BUILDINGS—THE OPENING CEREMONY

130. London University Senate House, lecture hall (1870).

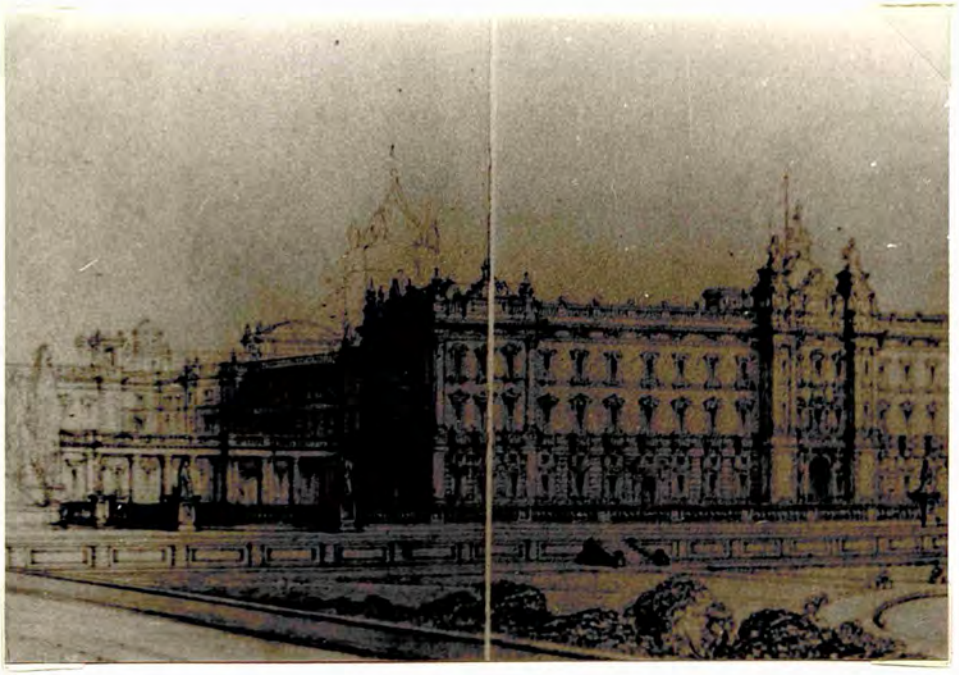
131. London University Senate House, library and examination room.



132. Buckingham Palace, ground plan in 1851.

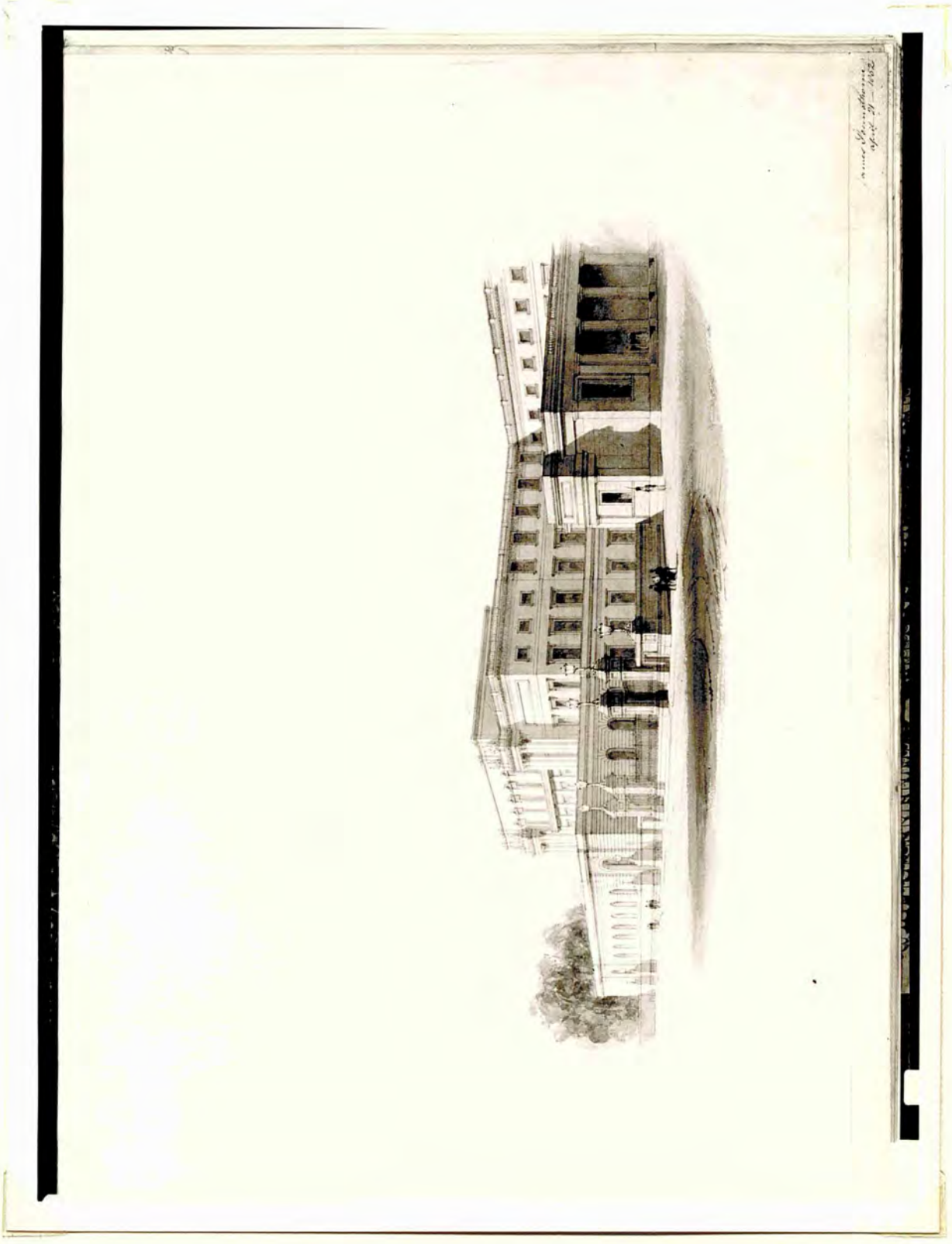


133. Buckingham Palace, block plan showing periods of construction.

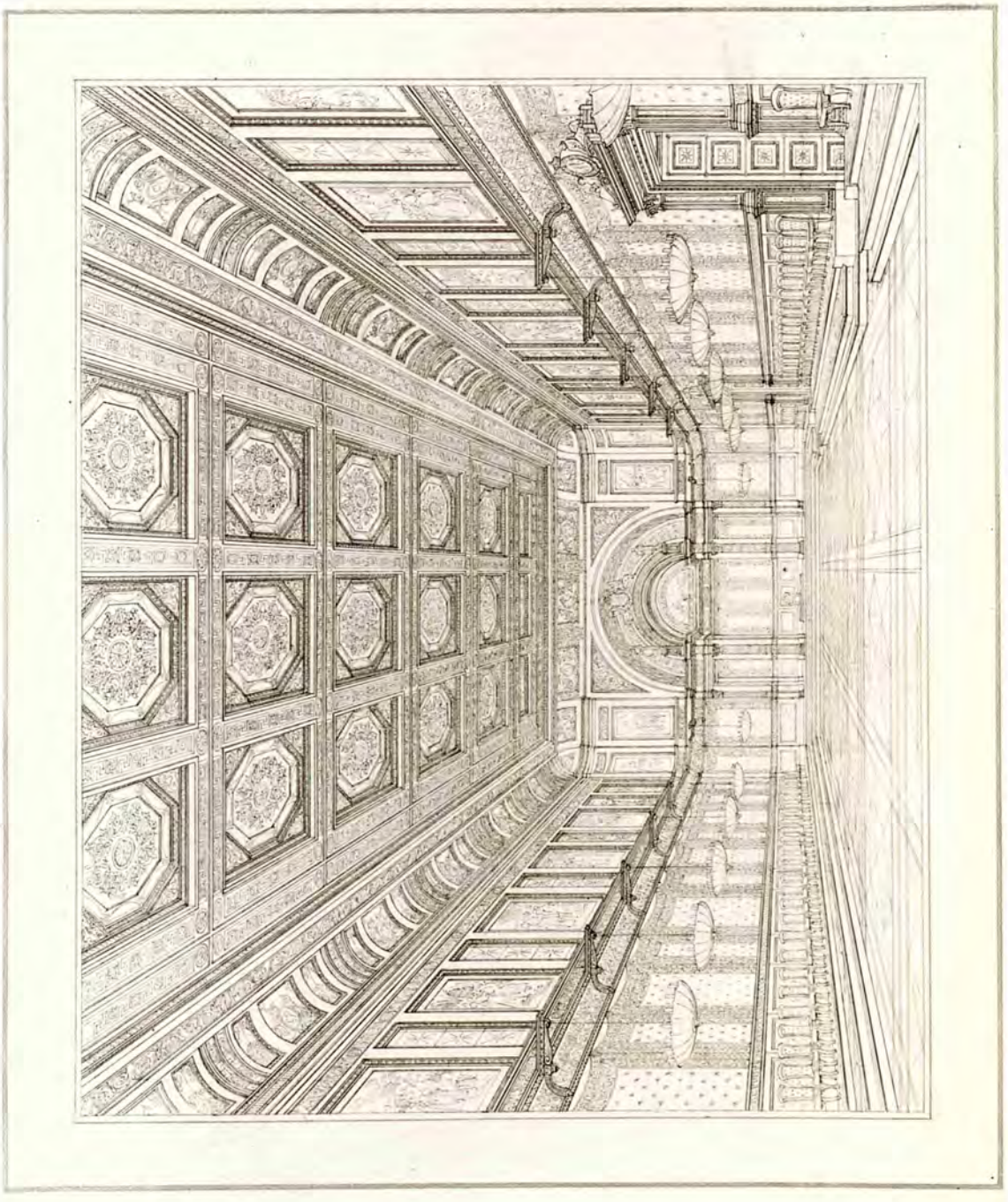


134a. Buckingham Palace, design by Edward Blore for east front, showing proposed south range.

134b. Buckingham Palace, west front, with Pennethorne's south range.

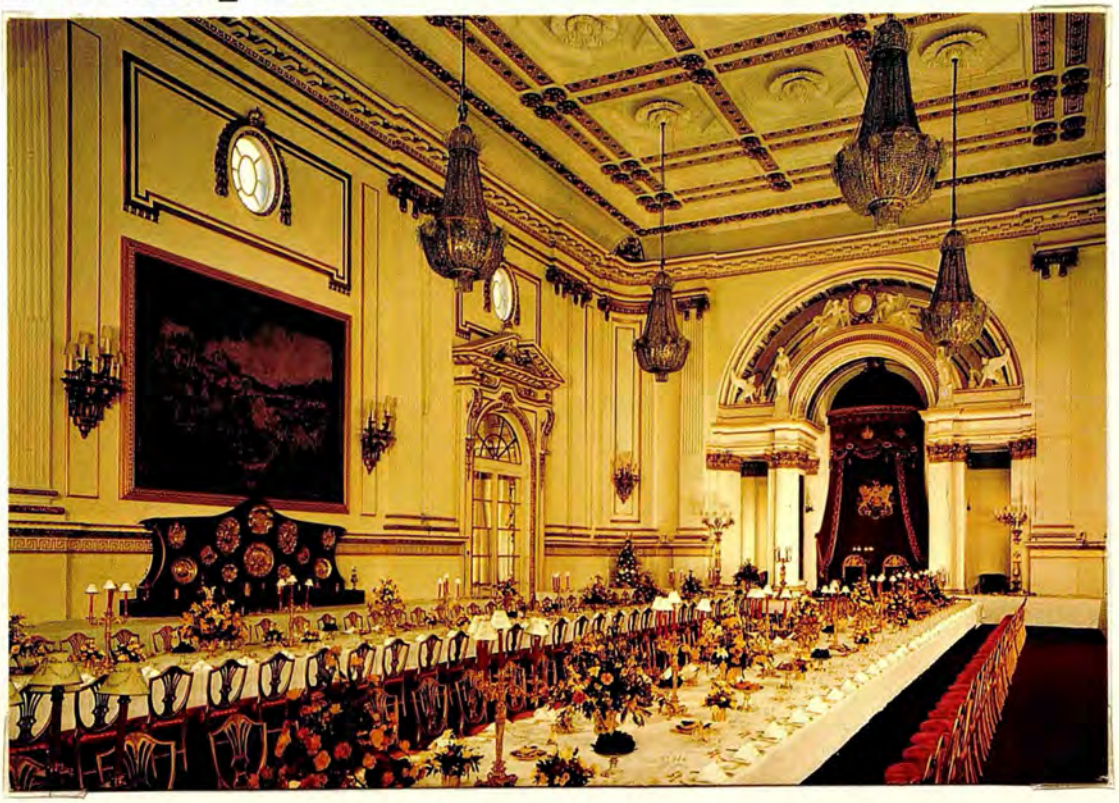


135. Buckingham Palace, design for south range seen from the east, (1852).

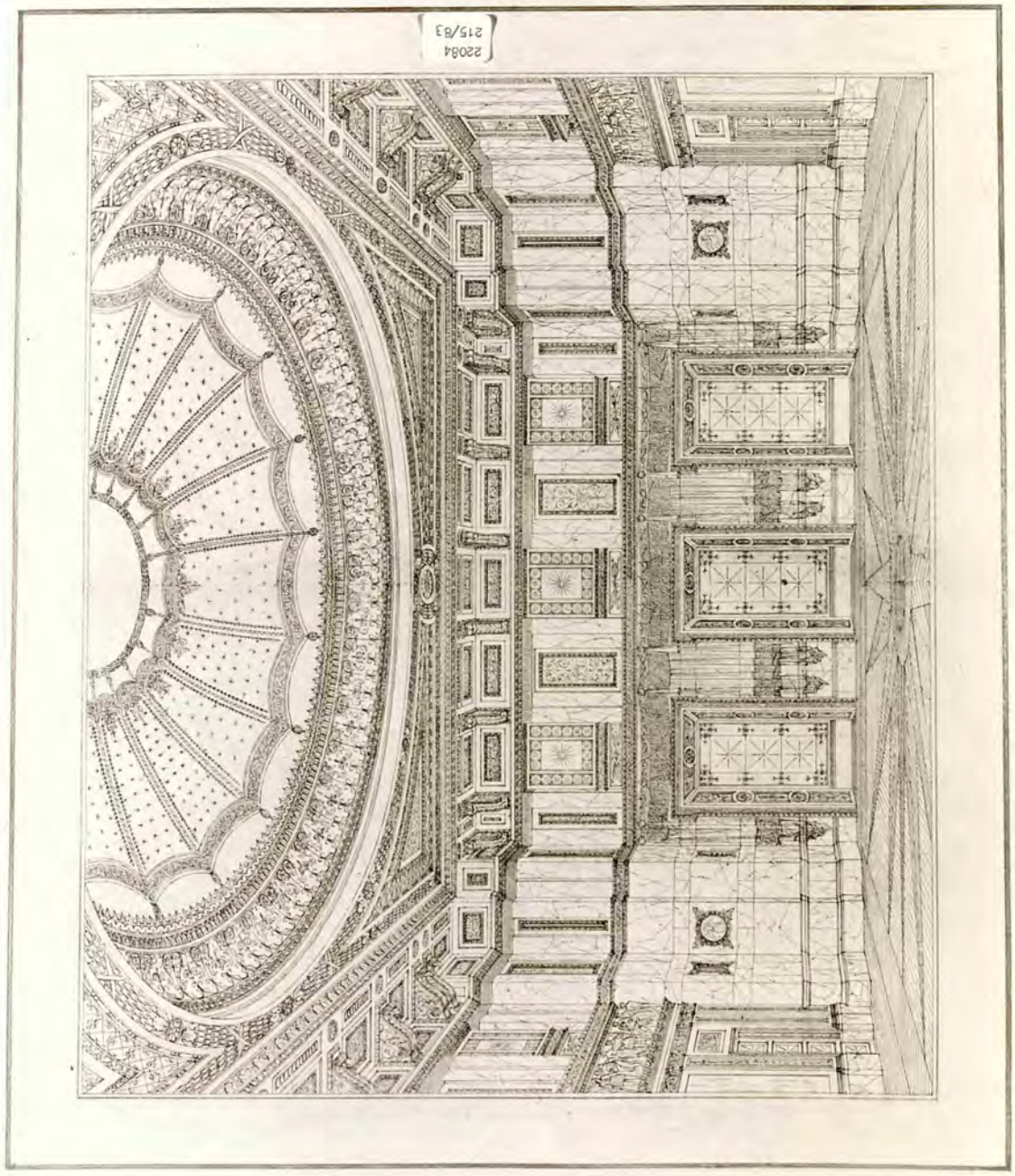


136. Buckingham Palace, Ballroom, first design, 1852.

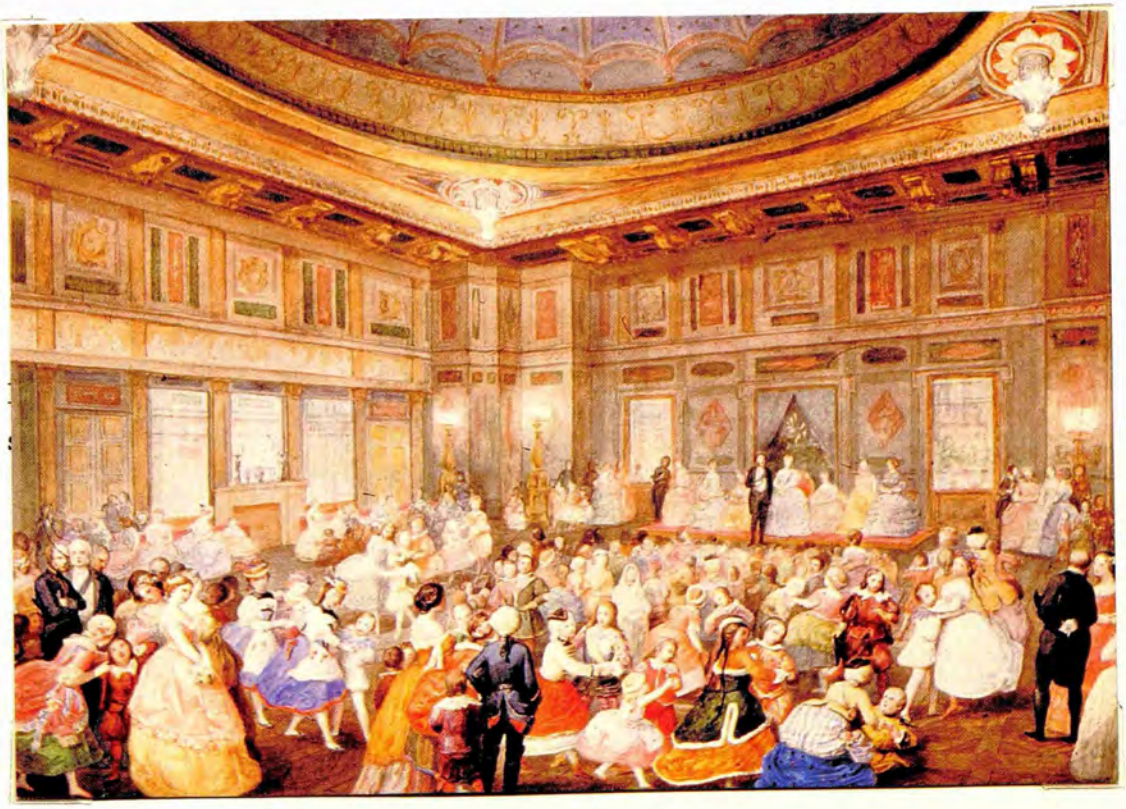
137a. Buckingham Palace Ballroom as executed, before alterations, c.1889.



137b. Buckingham Palace Ballroom, after alterations.



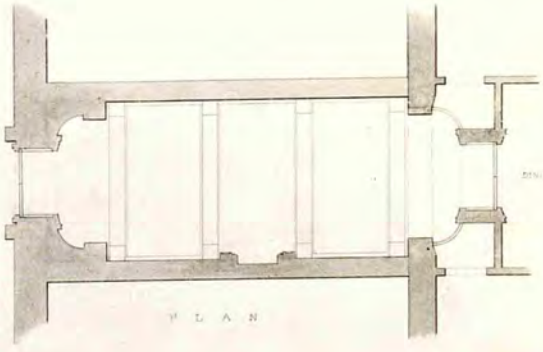
138. Buckingham Palace, Supper Room, first design, 1852.



139. Buckingham Palace, Supper Room in 1859.

VIEW LOOKING TOWARDS THE DINING ROOM

BUCKINGHAM PALACE APPROACH GALLERY

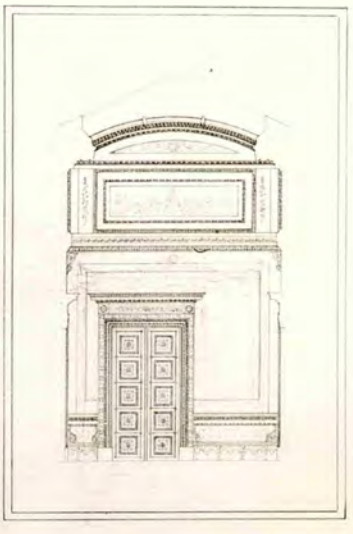


PLAN

140. Buckingham Palace, Approach Gallery, first design, 1852.

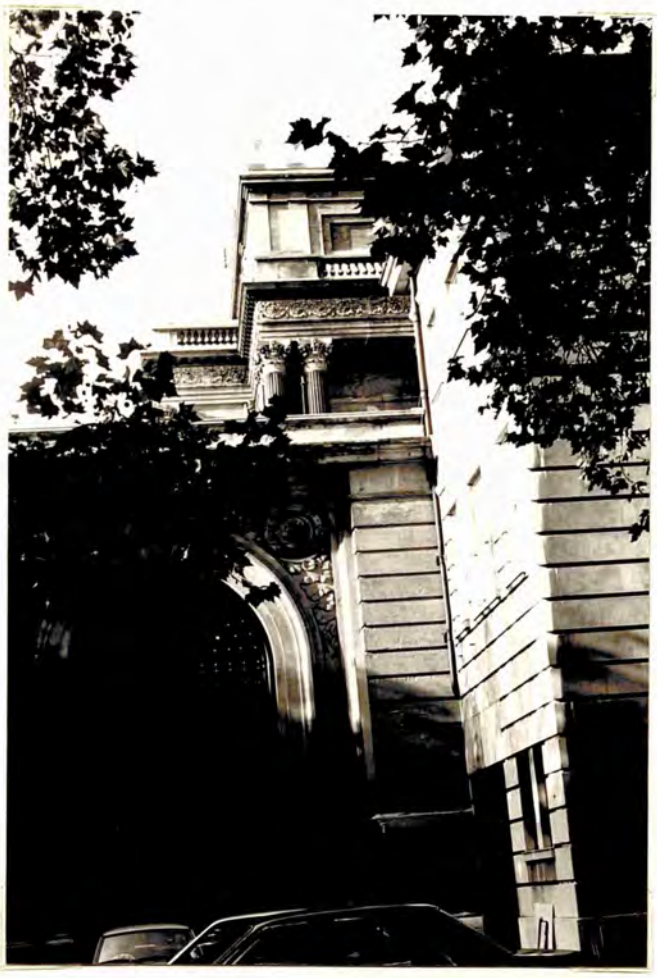
VIEW LOOKING TOWARDS THE BALL ROOM.

TRANSVERSE SECTION



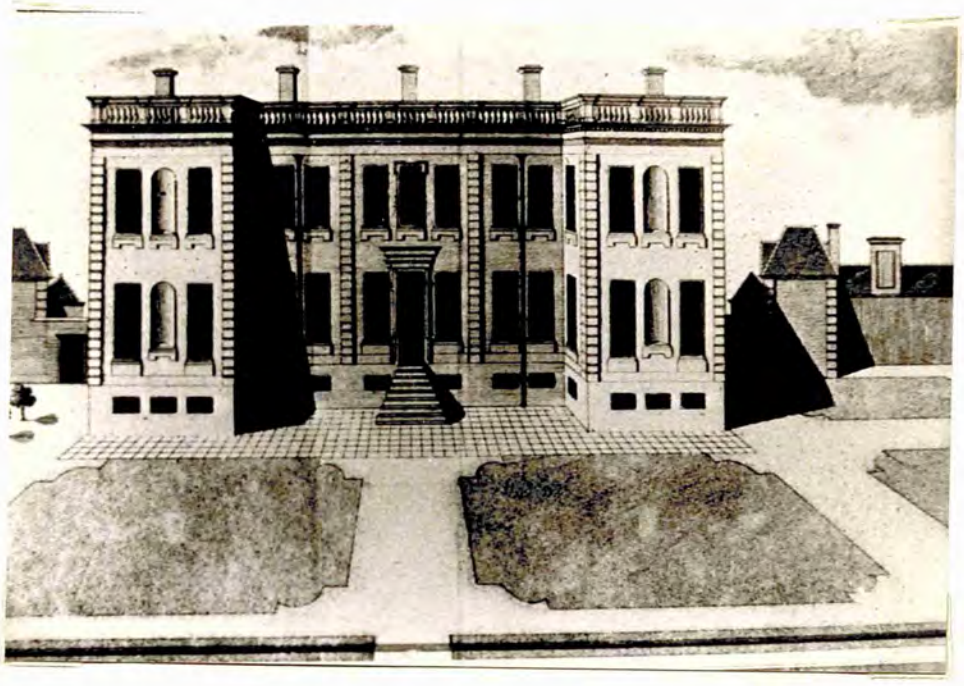
141. Buckingham Palace, Promenade Gallery, first design, 1852.

142. Buckingham Palace, Promenade Gallery, as executed, looking towards Ballroom c.1889.

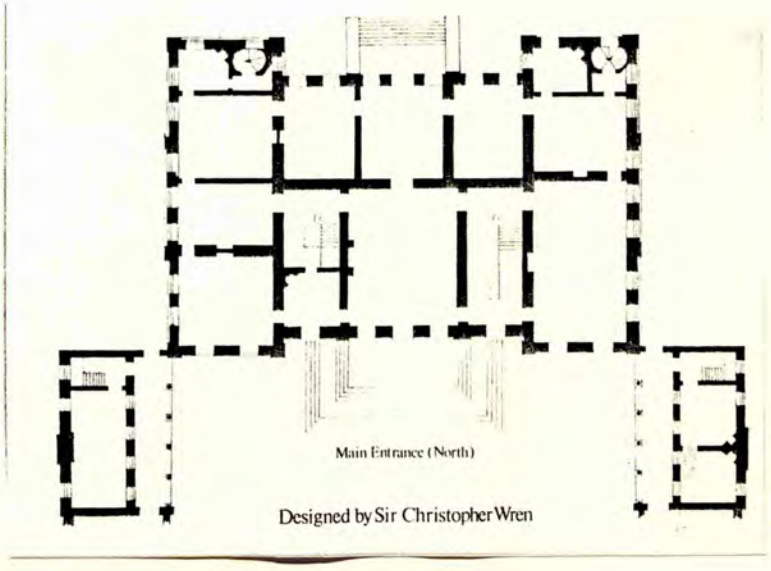


143a. Buckingham Palace, south range, entrance doorway from Buckingham Gate.

143b. Buckingham Palace, wall to Buckingham Gate and Riding House.



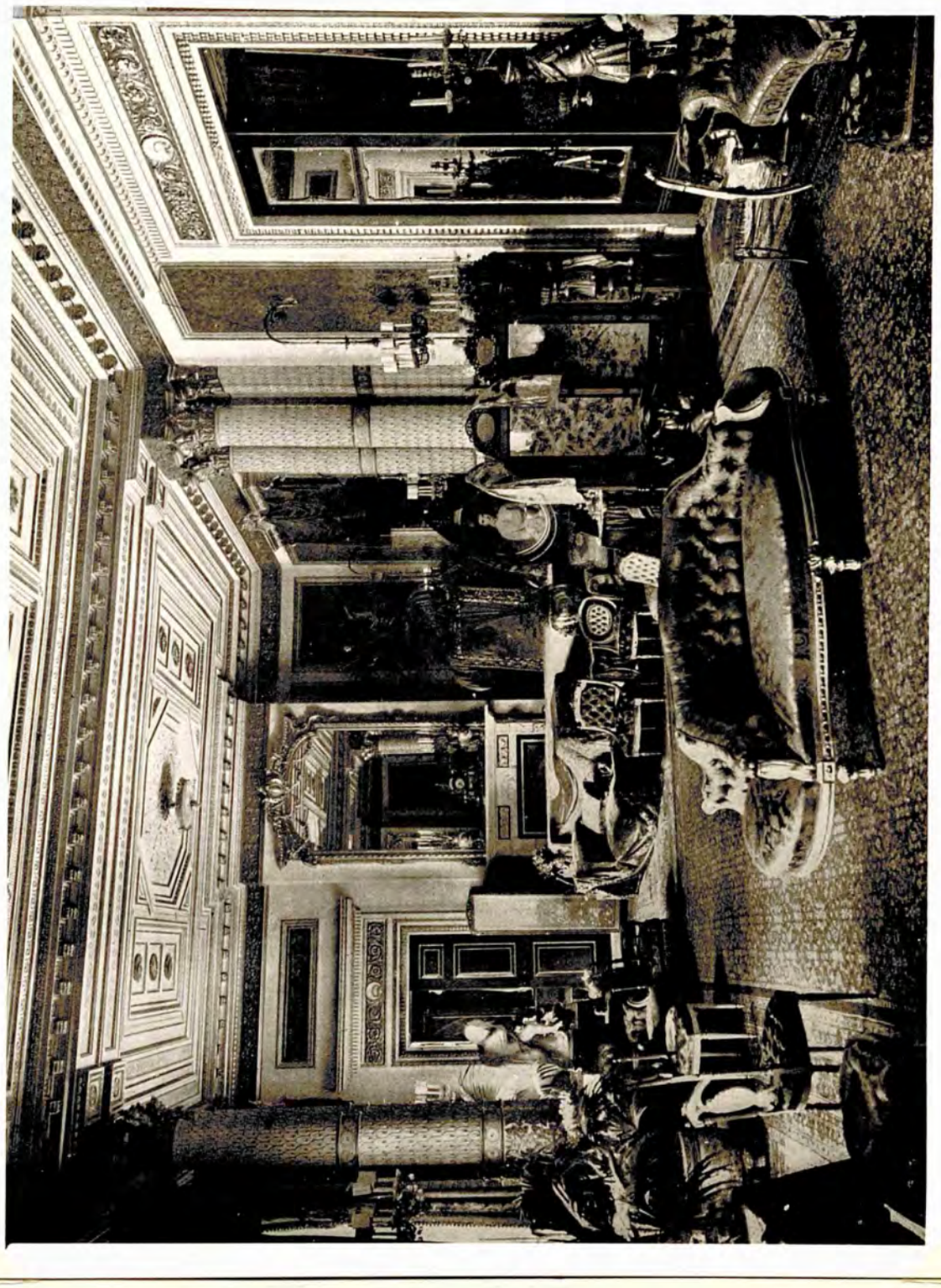
144a. Marlborough House, garden front in the early 18th century.



144b. Marlborough House, original plan.

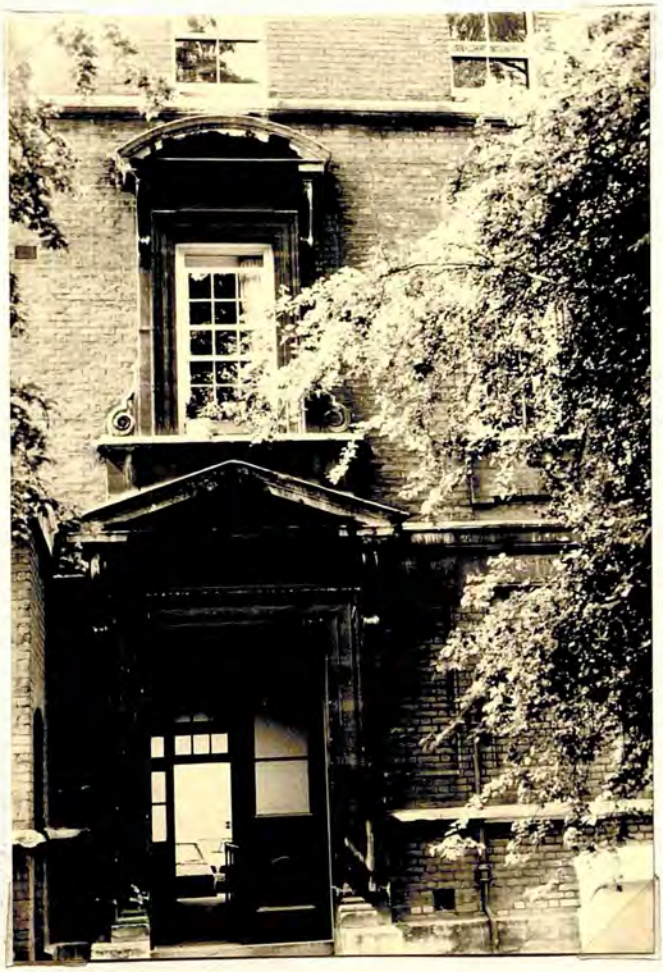
145a. Marlborough House, entrance front and carriage porch.

145b. Marlborough House, plan in 1870.



146. Marlborough House, drawing room as remodelled by James Pennethorne in its original form (1895).

147a. Marlborough House, stables, south front from the west.



147b. Marlborough House, stables, entrance doorway.

148a. Marlborough House, stables, north front.

148b. Marlborough House, garden front.

149. Design for the Albert Memorial, 1862.